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ART. I.—*Cases of Fever with remarks.* By J. R. BUCK, M.D., Lecturer on the Theory and Practice of Medicine in the Louisville Summer School of Medicine.

D. K., æt. 27 years, very robust, strictly temperate, ship carpenter; health perfect till the fall of 1841, when he first came to Louisville, since which time he has had several attacks of mild intermittent fever. In May, 1844, I attended him several days during a slight attack of bilious fever. In July following I again prescribed for him for chills and fever.

On the 14th of August, 1844, was called to see him; attack commenced two days previous with alternate flashes of heat and chilliness continuing all day. 13th. Had slight but distinct chill, followed by considerable fever. The morning of the 14th I found him with slight fever; dull headache; anorexia; no nausea or vomiting; not the slightest pain or tenderness on pressure over any part of the abdomen; pulse rather frequent, and compressible. Bowels loose from Lee's

pills taken on the 12th. Tongue coated with a dense brownish fur. ℞ Calomel and Dover's powder.

15th.—8 o'clock, A.M. More fever, with much more tenseness and fulness of pulse. Bled to 16 ounces. Calomel and Dover's powder repeated.

16th. No fever; in all respects better; some little tympanitis; bowels still too loose. ℞ Quinine grs. x, opii gr. i, to be taken at one dose; after which was very comfortable until 12 o'clock at night, when fever with delirium came on; frequent copious watery dejections during the night; no tenderness over the abdomen.

17th. Dr. Gross called in consultation. Blisters covering the abdomen; calomel and quinine ää grs. v ,morphiæ acetat. grs. ii, to be repeated every four hours, until the watery dejections ceased. The only effect of this prescription, which was repeated several times, was to produce free bilious evacuations, still, however, very watery. No sudamina. No petechiæ, or rose colored spots upon any part of the body. No sordes. Tongue became red and clean; sense of hearing impaired.

Died on the 20th; constant noisy delirium for 18 hours previous.

Examination seven hours after death.—Rigidity of limbs; no unnatural appearance of the body. *Brain* not examined. *Chest*, perfectly healthy throughout. *Abdomen*, very slight inflammatory redness in cardiac extremity of stomach; also same in duodenum. *Jejunum* healthy. In lower part of ilium seven patches of Peyer's glands ulcerated, with slight inflammation of the mucous membrane between them. *Cæcum* larger than natural; whole internal lining membrane in a high state of inflammation, with numerous patches of a greenish yellow lymph upon it. *Colon* healthy. *Rectum*, intense inflammation, with some greenish yellow lymph.—*Spleen* two-thirds larger than natural, and much softened. *Liver* and *kidneys* healthy.

Case II.—J. H., æt. 20, ship carpenter, stout, robust, hab-

ts good, generally healthy. In July, 1844, had erysipelas of face and neck, mild, yielding in a few days to laxatives, with argen. nitrat. as an external application.

August 31st, 1844. Called to see him; had been slightly indisposed for two days; some fever; very slight pain in the lower part of the abdomen upon firm pressure; tongue covered with a brownish coat; pulse 88, moderately full; three dejections in 15 hours, thin and light colored; some little nausea, with occasional vomiting. ℞ Leeches to lower part of abdomen; calomel and opium.

September 1st. Pulse more frequent, more volume; pain over the eyes; skin dry and hot; bowels still loose. Bled to 16 ounces. Calomel and opium repeated.

2d. Some better; pulse reduced in force and frequency; skin moist; no pains; discharges from bowels more frequent, but of dark bilious color; no abdominal tenderness. ℞ Blister to lower part of abdomen, calomel and quinine ää grs. x, morph. grs. ii, to be given every three hours. Under this prescription the patient for two days seemed to improve; the discharges from the bowels being less frequent. On the third day the discharges became much more frequent and tinged with blood. The morphia was now increased to four grains every two hours without at all altering the condition of the bowels or procuring a moment's sleep. Mercurial inunction had been resorted to but without producing any sensible effect. Mustard poultices to the extremities. Carb. ammonia, wine whey, and brandy toddy were all given.

Died on the 8th; intellect clear to the last. No post-mortem examination.

Case III.—J. P., æt. 30, tall, not very muscular, ship carpenter, habits good, lived in same room with case 2d; taken sick at the same time, and with symptoms so analogous, that one prescription answered for both. This almost identity of symptoms, and consequently of treatment continued until the fourth day, when in case 3d a profuse hemorrhage from the bowels (two quarts, according to the nurse's estimate) occur-

red; the patient was much prostrated by this discharge of blood. A little brandy toddy was given occasionally for six or eight hours, when quinine and morphia in very small doses were prescribed, and continued several days. On the eighth day discharged half a pint of blood from the nose. Discontinued attendance on the tenth day; convalescence dating from the first hæmorrhage.

Remarks.—In the three cases here reported we have a type of fever prevailing, more or less in the latter part of every summer and fall, in Louisville and its vicinity. The particular locality in which these cases occurred (near the ship yard) is especially subject to this form of disease. Two causes may be assigned for this,—1st. The situation is low and flat, subject very rarely to overflow, but after every rain remaining very damp, with several large ponds of water upon it for weeks; this low land extends half a mile back of the ship yard to Beargrass creek, which empties into the Ohio river at the city steamboat landing. Unless the season be unusually wet, this creek is little else than a chain of stagnant ponds, into which much filth is thrown from tan-yards and slaughter houses. 2dly. The very great increase in the boat building of this city, and the consequent demand for ship carpenters, attracts every spring a large number of men from the most healthy portions of Ohio, Pennsylvania, New York, &c., and who of course are entirely unused to our climate. Cases 1st and 2d were from Elizabethtown, Pennsylvania; and case 3d from Maine. This disease, however, is by no means confined to this locality; it occurs occasionally in the densely populated part of the city—in Jeffersonville, Indiana, on the opposite bank of the river, and is very common indeed in the surrounding counties.

Does it differ at all from the ordinary autumnal remittent fever, as it has prevailed throughout the West and South for the last few years, or the last half century, at particular seasons? Let the readers of the Western Journal answer.

I have thought that a detailed account of a few cases

might be instructive as throwing some light, not upon the cause of fever perhaps, but upon those structural lesions which are the immediate causes of death, and thereby leading to a more rational and more successful treatment. The most interesting points in their histories, are the entire absence of pain upon pressure over the abdomen in one, and the very slight pain in the other two, notwithstanding the intense and extensive inflammation in the organs of this cavity; and the little influence that opium and its preparations had in controlling the discharges from the bowels. That the same lesions were present in the two last cases, which dissection revealed in the first, there can be no doubt; the close analogy between the symptoms in all these cases, and the identical effects of the same remedies, would alone be sufficient to prove it; but again, in case second there was slight hemorrhage from the bowels, and in case third it was most profuse, prostrating the patient very much, and caused in all probability by the sudden rupture of a blood vessel from ulceration. What practical deductions are to be drawn from these cases? 1st. That absence of pain or tenderness upon pressure over the abdomen, is not inconsistent with the most extensive inflammation and ulceration of the bowels. 2d. That as in case third a decidedly favorable change dated from a very copious hemorrhage, when the pulse did not seem at all to indicate the loss of blood; threfore free depletion, either general or local, would promise benefit in such cases, and the pulse cannot be relied upon as an infallible guide. 3d. That the liver is healthy, secreting bile with its usual energy, and as sensible to the action of its appropriate stimulus, mercury, as in perfect health; that therefore large doses of calomel for the purpose of acting upon this organ are not indicated, and productive of no benefit. 4th. That we cannot hope by the largest doses of opium and its preparations to arrest the discharges from the bowels until by depletion the inflammation is relieved.

Louisville, December, 1845.

ART. II.—*Report of a Case of Narcotism from the Exhibition of Sulphate of Morphia.* By THOMAS CARROLL, M. D., of Cincinnati, O.

Mr. B., aged 47 years, had been intemperate during 20 years of his life, but had reformed two years before the occurrence about to be related. In July, 1845, he arrived in Cincinnati, and a few days afterwards was taken ill with remittent fever, which, however, was not of a serious character. Dr. H. prescribed for him. The disease had yielded so far that the patient was sitting up, when the Doctor concluded that tonics would be useful, and wrote the following prescription, as he thought:

℞ Sulph. quinine, grs. xxiv.
Hydrargyri sub., grs. xxxvi.
M. Make into xij. powders.

But instead of the sulphate of quinine, he wrote sulphate of morphia. The powders were put up according to the prescription, and one was directed every two hours. The first dose was taken about 9 o'clock, A.M., on the 11th of July. The doctorr saw the patient at 1 P.M., after three doses had been given, he was then sitting up, but quite sleepy. This symptom made the doctor think that congestive fever was occurring, and he ordered, as the best preventive, a continuance of the medicine. The patient was again seen by him at 7 o'clock, P.M., when he was in a comatose state which led the doctor to the conclusion that a bad case of congestive fever had sure enough set in. He directed that the remaining six powders (for the patient had already taken six) should be sent back to the apothecary, and two grains of quinine added to each. This was done, and the medicine was continued, until three doses more were taken. The last dose administered, was got into his mouth by forcing the jaws apart with an instrument; but when the time rolled round for another dose, the masticatory muscles were so tight that the mouth could not be opened even by force. Alarm now seizied on the friends of the patient, and as the Doctor's

health would not allow him to go out in the night, I was called in. When I arrived, I found, by inquiry, that the patient had been bathed in a cold sweat for sometime before the doctor had seen him at 7 o'clock, and that stertorous breathing had existed for hours. I found the extremities completely paralyzed, and bathed with cold perspiration; his breathing was laborious and irregular, sometimes amounting almost to a complete cessation. His masticatory muscles were so firmly fixed that the jaws could not be forced open; and he had not swallowed anything since the exhibition of the last dose of medicine.

I became satisfied that opium had been given in some form or other, and, therefore, went to the apothecary and examined the prescription. No sulphate of quinine was directed in it, but 24 grains of the sulphate of morphia had supplied the place; and it was certain that a mistake had been made in writing the prescription.

Eighteen grains of sulphate of morphia had now been given within 16 hours; and but two hours had elapsed from the exhibition of the last dose, until I saw the patient. I desired consultation, and Dr. Lawson was called in. We determined on the cold douche over the head and body, which we directed to be repeated every half hour; and that at each time the patient should be well dried, and covered until another application should be made. It was also directed that an iced water injection should be given every hour or two; but three, however, were given, all of which were retained many hours, and seemed, at each administration, slightly to benefit his breathing. I continued with the patient for a while, but left him about 4 o'clock, directing that the prescription should be followed punctually, until my return, which I said would be at 7 o'clock. A suspension of the prescription, however, took place for a short time, owing to the idea that the patient must die. I returned at 7 o'clock and found him about as I had left him.

Dr. Lawson again saw him with me, and we still continued the same prescription. A slight convulsive action was ob-

served in the flexor muscles of the left hand, accompanied with laborious breathing. Death seemed to be almost inevitable. At this moment I dashed a large quantity of water over him from a considerable height, which slightly relieved the breathing. He was now denuded of all covering, and laid upon a straw bed; iced water was then dashed on him from head to foot, and continued for some time. He was dried and covered with a blanket for a few minutes, when he was again subjected to the same process; but no good effect, further than a slight relief of the breathing, could be discovered for three hours, when I found that during the time when a full stream of water was falling on him, a general shivering took place, as though he had an ague fit. The moment this chill occurred his breathing became perfectly easy. I now felt certain that he was safe. He was dried well, and placed on a comfortable bed. Ice was still kept to his head (which had been done from the time I first saw him,) and was continued for an hour, before the termination of which time, he spoke. It should be noticed that in using the iced water, the patient was turned over each time of its application, so that it could be dashed on his back. It should also be mentioned that more than half a bushel of ice was used, with a very large amount of water—probably a barrel.

Dr. Woodward saw the patient with us during the afternoon, and agreed with us that no medicine should be given, but a dose of oil for the purpose of carrying off the calomel which had been taken, and the patient took no other medicine. He was well in a few days, and returned to his family.

In reviewing this case it may be said that the recovery was most unexpected, and may, possibly, have been in part owing to the former habits of the individual; yet it seems almost certain, that without the treatment which was adopted the case would have resulted unfavorably. As has been stated, at each application of the cold douche, the breathing was considerably relieved of its stertorous character, at least for a few minutes; though it was long before any other good

effect could be observed. The chill that immediately preceded the establishment of natural breathing, was in all probability the consequence of the almost constant showering. During the three hours immediately preceding this chill, I was with the patient every moment, and used all the iced water I thought was admissible, as consistent with the continuance of life.

One thing seems to me highly probable; that an equivalent amount of opium, would have been certain to have destroyed life by apoplexy. This is one argument, I think, in favor of the use of morphine instead of opium; an argument which others have used before.

Cincinnati, Ohio, November, 1845.

ART. III.—*A Case of Abortion, and Retention of the Placenta.* By A. R. NELSON, M.D., of Rutherford county, Tennessee.

On the night of the 17th July last, I was called to see a negro woman supposed to be in labor. On arriving, I found that the fœtus had already been expelled. From its appearance and size, I supposed it to be from four and a half to five months advanced.

After waiting the ordinary length of time and finding that no efforts were made on the part of the uterus for the expulsion of its contents, the usual measures of an external and tangible character were resorted to, for the accomplishment of this object, but all to no effect.

Seeing the insufficiency of these measures, remedies of an internal character were next administered, and as a matter of course a dose of the secale cornutum was given, but the article produced no effect. On the morning of the 18th a second dose, consisting of half a drachm, was administered, without producing the slightest effect. During the afternoon blood was drawn to the amount of ten or twelve ounces; a

dose of oil was given which operated well. The external organs of generation were very much swollen as was also the abdomen.

She informed me that a day or two previous to her confinement, œdema of the lower extremities had existed. Warm fomentations were applied to the parts, and continued through the day. Her pulse was full and frequent from the commencement, but was reduced by the abstraction of blood.

Friction was applied from the first to the last, but no contraction followed; twenty-four hours after the expulsion of the fœtus, the hook was resorted to, and by means of it a portion of the membranes brought away; during the day the umbilical cord detached itself. At late bed-time ten grains of blue mass, with half a grain of ipecacuanha were administered.

On the morning of the 19th I visited her, and was informed that she had rested pretty well the previous night. Her pulse was rather frequent than otherwise. During the night she felt some sickness at the stomach, which, I suppose, was caused by the medicine given. Between midnight and day she had an alvine evacuation; an hour by sun this was followed by a second, but not understanding that her bowels had been sufficiently moved, a dose of salts was ordered. This produced, however, only two passages. About eleven o'clock in the morning she was reported to have had a chill; after which she became very restless and remained so during the day, complaining of headache which was attended by slight fever.

At night examination per vaginam was made, and the parts were found to be still in a tumid condition. The common hook was again resorted to, and with no little difficulty the placenta, together with the remaining portion of membranes was extracted, in an hour or two afterwards. The patient soon became more quiet, and under the influence of five grains of Dover's powder and ten of blue mass, was left for the night.

On the morning of the 20th I found her comfortable, and learned that she had rested well during the night. Her pulse

was in a better condition, and her situation was in every respect greatly improved.

I will merely add, that this woman was thirty-seven years of age, and that this was her ninth pregnancy, and seventh abortion. Her health appears to be good, except in this respect.

November, 1845.

ART. IV.—*The Case of Dr. Abner Baker, an alleged Monomaniac, who was Executed on the 3rd of October last, for killing his brother-in-law, Daniel Bates.*

We adverted briefly, in a former number, to this case. At that time it was before the Governor with a petition for pardon. The executive clemency was not exercised, and the law was suffered to take its course. The testimony given on the trial is before us, and we propose laying before our readers the material facts of the case, by which they will be enabled to make up an opinion respecting the monomania, which was insisted upon in the defence. Monomania was the only plea set up by the counsel of the prisoner; the killing was unquestionable and undenied. Baker was seen by two witnesses to ride up to the salt works where Bates was engaged, dismount from his horse, advance with a pistol, fire, and then return towards his horse. The ball was received by Bates in the back, and proved mortal in a few hours. Baker went to the house of Hugh L. White, the uncle of his wife, and stated what had occurred, appearing to be highly elated at the deed, and expressing no fears for the result if he could get justice.

The father-in-law of Baker, James White, a witness for the Commonwealth testified, that Baker, becoming jealous, had parted with his daughter three months after their marriage. Baker had charged his wife to the witness with unchastity under circumstances the most incredible; such as

that she had commenced her lewd practices at nine years of age—was seduced at that early period by her teacher, a clergyman of unimpeached moral character—that Bates had come to his bed in the night and communicated with her in his presence, and that she had had criminal intercourse with several of her uncles. The witness further stated, that Baker had exhibited to him a certificate from Mrs. Baker wherein she confessed her guilt in these particulars; and that when he asked her respecting it, she said she was *obliged* to give it. Baker then proposed to witness that if he would furnish him with money he would leave the country with his daughter, go to Missouri, or some new country, and try to live with her. A sum of a thousand dollars was proposed Baker abused Bates to the witness all day; said that he was the "blackest hearted man that ever lived," and repeatedly threatened to kill him. Such language, it was testified, he used in reference to Bates on many occasions; the phrase just quoted recurs in the evidence about a dozen times; but while such was his estimate of Bates, and such his suspicions, it is important to remark that Bates, in his dying declaration, asseverated in the most solemn manner, that he was innocent of all the charges made against him, that he had never injured Dr. Baker, and that his jealousy was unfounded.

Josiah Davis, another witness for the Commonwealth, stated, that Baker, previously to his marriage, had told witness that Bates' negroes were prepared to kill him (Baker); that Bates did not treat his sister. Mrs. Bates, kindly; that he had threatened her life, and, he believed, would have killed her if his heart had not failed him; and that he stayed at Bates' house to protect his sister. Witness testified that the charges were untrue, and that Bates lived happily with his wife.

Several other witnesses on the same part swore that Baker had charged Bates to them with a conspiricy against his life, and that his negroes were bribed to murder him. It was testified that in this state of mind he left Bates' house, leaving his business behind him, as he expressed it, to avoid a difficulty; that he went to Knoxville, and after an absence of a

weeks, during which time he gave strong evidences of insanity, as will presently appear, returned and perpetrated the deed over which his mind had been long brooding.

By various witnesses it was stated that Baker had manifested great apprehensions that Bates was seeking an opportunity to kill him, and had his negroes armed ready to take his life. One negro was sold, and Baker asserted to a witness that Bates disposed of him because he would not promise to engage in the murder. From all the testimony in the case it is plain, that he labored under a perpetual fear of assassination.

It was testified that Baker's eye had a peculiarly wild and fierce expression, which was increased whenever he spoke of Bates or his wife; that he was restless, and behaved in a way to alarm his friends. His step-mother related the circumstances of his behaviour at his father's, when visiting the family the first time after his marriage—his remaining nearly all the time in his room, his indisposition to see company, and his strange conversation, from all of which she came to the conclusion that he was deranged. Other members of the family bore testimony to the same point. His wife was found frequently in tears. He complained to his sisters that persons were admitted to his room at night. He suspected the chastity of his step-mother and sisters, and charged them with keeping a house of ill-fame. One individual in particular was the object of his suspicions; this man came into the room where he was passing the evening with his wife at the house of a friend, when his manner became strange, and his look wild. He paced the floor backwards and forwards, cursed and swore, and wished himself in hell. The lady of the house said to him, that he ought to be ashamed of himself; whereupon he whispered something to his wife, and she was observed to shed tears. The witness who detailed these circumstances is the mother of a deranged son, now confined in a lunatic asylum; her conviction of Dr. Baker's insanity was so clear, that she declared to his sisters and to her fami-

ly that she should feel safer with her son than with Baker. All the female witnesses, as well as every man who bore testimony in the case, united in a favorable report as to the conduct of Mrs. Baker. Not a whisper was uttered against her good name, except by her unfortunate husband whose jealousy, no one doubted, was wholly groundless. From testimony now to be adduced we shall see how wild and extravagant this passion was.

After parting with his wife, and after having made an attempt upon Bates' life in a paroxysm of jealous rage, he went' to Knoxville, in Tennessee, where he met two of his brothers, respectable physicians of that neighborhood. To them he related the story of all his imaginary wrongs. He said that Bates had more than once come into his room and cohabited with his wife in his presence. The particulars were minutely given, and among them he stated that Bates made a negro woman stand over him with a bowie knife while the act was in progress. He declared that there had been a plot between his wife and Bates to poison him; that on one occasion, when he sipped a little toddy made for him by his wife, without solicitation, it flew into his head and swelled it up until it felt as large as a bushel; and that if he had drunk as much as usual, "it would have blowed him to hell in five minutes." He assured his brother that his wife was pregnant when he married her, as he ascertained by a manual examination shortly afterwards, and that she miscarried while they were on their visit to his father's—a circumstance rendered utterly incredible by the testimony of all the female witnesses. He also assured him that one of their young sisters had been violated by Bates, and was then in the family way. He recited the proofs he had, that, while his wife was still indisposed from her miscarriage, she had intercourse with a man in Lancaster. To another witness he stated that the clergyman, her teacher, who seduced her, kept up his intercourse with her "until her courses came on" and then desisted—that before her marriage, while suffering from tooth ache, a man went into a room where she was lying on a bed, and cohab-

ited with her—that a negro man, after their marriage, had crawled up to the window, got into her room, and had intercourse with her; the proof of which was, that when he slept with her "*she filled him full of seed ticks*," which had come from the negro, some of which he held out his hand to exhibit to a witness. He told the same witness that his mother had opened the door to admit a man to his bed while he was on the visit to his father's. He declared to another witness that "his wife was the smartest woman that ever lived; that she would lay her ear on his breast and ascertain when he was asleep"—and that he "wrung himself around her," and so managed to get her to give the certificates. His horse falling lame while he was at his father's, he charged a negro with having injured him for the purpose of detaining Mrs. Baker in order that he might continue to have criminal intercourse with her. After he had committed the fatal deed and was in the custody of a magistrate, he related to persons present all these transactions, and as one of them testified "told him over and over the same things with great minuteness." And when he was brought to trial before the magistrates, and the plea of insanity was set up in his defence, he declared that he "would rather be hung than that such a plea should be relied upon." He would plead justification; that he was justifiable; that Bates was at the head of a combination to take his life, and that he could prove it by Mrs. Bates.

It was made clear by all the evidence that Dr. Baker was of a remarkably suspicious disposition, and that his intimate friends had often been alarmed by evidences of insanity; still it does not appear that any of the witnesses were led to suspect the soundness of his mind by the many strange and incredible stories he told of his wife. On the contrary, being a physician in good practice, esteemed a man of strong sense, and on nearly every subject exhibiting a lucid judgment, they pretty uniformly testified their conviction that he was in his right mind. Most of them had never heard of monomania, and they had not supposed that a man might be insane on

one subject while on others he evinced a sound understanding. The presiding judge, it would seem, did not admit of this distinction; for we are informed that he asked a medical witness "whether such a disease as *monomania* was known and recognized in medical authority;" and on being answered that it was both in law and medicine, he is reported to have "rejoined, in the hearing of the jury, that he had only made the inquiry as to medicine—he claimed to know something of the law himself."

Among the witnesses in this case were three physicians—Dr. H. Baker, to whose testimony we have already referred in part, Dr. Reid, and the late Professor Richardson. Concerning the state of his brother's physical system Dr. Baker stated, that "his hands were icy cold, his bowels costive, stomach irritable; that he appeared greatly distressed, watchful, and restless." But all this, and a letter received from his father intimating a fear that his son, Abner, was deranged, did not raise in his mind a suspicion that he was the subject of monomania. He showed the letter to his brother who evinced great indignation at the charge, which, we have seen, he continued to repel. He was exceedingly offended at his counsel because they persisted in relying upon it, and never forgave his father for expressing an apprehension that he was insane. It is most worthy of remark, that, in the end, he came to regard his father and brothers as his worst enemies.

Dr. Reid testified that, in his opinion, Dr. Baker was laboring under illusions of mind in regard to his wife, and so far was deranged; that he had known B. for years, and that he was in the habit of talking wildly on some subjects; that in view of the monstrous charges he had made against his wife and others, he should certainly pronounce him deranged on that subject.

The testimony of Dr. Richardson was ample and decided. He attended the trial, by request of the friends of the accused, for the purpose of giving an opinion on the case—that opinion was, that, in all his practice for thirty years, "he had not seen a better and more interestingly developed case of

monomania." So indicative was Baker's appearance of a mind diseased, that he believed he "could have picked him out of the crowd in the court house as a monomaniac." He visited the prisoner repeatedly in his jail, and found his physical condition and appearance evidently those of a deranged man; his pulse, temperature, expression of eye, hang of the muscles of his face, tongue, and whole aspect afforded to his mind infallible proofs of it. In his conversation, especially when it turned upon Bates or his wife, he was wild, incoherent, and erratic; "he seemed to believe, and asserted with a conviction apparently intuitive, things that seemed to the witness not only very incredible but impossible." When on these subjects "his eyes became singularly red, excited, and obviously maniacal."

Let us recapitulate: Dr. Baker, then, fully believed in the truth of all the charges he made, as is evident from the manner in which, time and again, and to a multitude of persons, he reiterated them. He believed that his wife was violated by a clergyman, of spotless reputation, when she was but nine years of age, that she cohabited with him until puberty, and that this clergyman made a *harem* of his school. He believed that his wife brought on abortion, a month after their marriage, by pressing on her abdomen, and that she gave birth to the child in the privy, and was able, not only to be about afterwards, but to go into company, and escape all suspicion of the females around her that she had miscarried. He believed that his mother and sisters kept a house of prostitution—that they introduced lewd men into his room at night, that, in his presence, they might violate his bed, while his wife bore the signs of her miscarriage still upon her. He believed that this wife, while yet a bride, was ready to yield, night after night, to the embraces of an aged brother-in-law, her uncles, a negro, and her own father! He not only believed that his wife was thus ready to prostitute herself to every man, of whatever color, or of whatever affinity to her, but that the intercourse took place on his own bed, and before his own eyes.

Medical men, everywhere, considering this testimony came to the conclusion expressed by Prof. Richardson, that Dr. Baker was deranged in respect to his wife, and that in a fit of insane jealousy he had taken the life of his brother-in-law. So viewing it, the physicians of Lexington, of Frankfort, of Danville, of Lancaster, and of Louisville communicated to the Governor their solemn conviction of his insanity. These expressions of professional conviction were unavailing, and the unfortunate man was executed. Under the gallows his manner was as it had been, and his vehement asseverations to the last were of his wife's infamy, and of his own justification. In other words; he died like an insane man. No relentings, no looking forward to the rewards of a hereafter. no tenderness towards the friends around him, or for his absent father and sisters, evinced the pious education he had received, or any lingerings of humanity within him.

If he had been affecting insanity up to this time, is it reasonable to believe that he would have maintained the character to the last? If not a maniac why continue to rave like one when there was no longer any hope of pardon, and while the executioner was adjusting the fatal cord about his neck? No one can doubt that the belief of his wife's baseness was rooted in his mind, and that he felt himself fully justified in taking the life of the man who had first violated his bed, and then conspired against his life. Except upon this principle, his conduct was inexplicable throughout. He had nothing to promise himself from all his cruel treatment towards his wife, and his violence towards Bates. She was the wife of his choice, and, at times, he displayed the most violent affection for her. Bates was his friend, as well as his kinsman. In his profession his prospects were fair. His father-in-law had wealth, of which, in due time, he had the prospect of becoming one of the inheritors. By kindness to his wife, and by preserving friendly relations with his wealthy and influential brother-in-law, he stood every chance to rise in his profession and do well. By taking the fatal step which he did, he brought upon himself certain ruin. It was tes-

tified by one witness, that Bates said that the doctor had quarreled with him because he did not receive money from him fast enough; but it was clear that the taking of his life would not cause it to flow faster, but, on the contrary, cut off his supply from that source altogether. The father-in-law related that Baker spoke to him of money; but it was under circumstances, and connected with accusations against a daughter of so monstrous and incredible a character, that it is impossible to read them without a feeling, that the man who would go to a father with such a story, and such a proposition must be insane. And in this light it appeared to the father, for he testified that he said to Dr. Baker, on the occasion referred to, that "he was either deranged, or one of the greatest scoundrels in the world." Up to this time Baker had stood well among men; we have no proof that he was wanting in principle, but much proof that he had been a dutiful son, and a respectable student and practitioner of medicine. By departing from a life of honor he had nothing to gain, and everything to lose. Not a shadow of evidence was adduced, that his wife was guilty of any one of his charges, and we are left to infer that the crimes imputed to her were either the hallucinations of a disordered brain, or else the fabrications of a man so base, that he was willing to render his wife infamous in the eyes of her father, and still live with her; and all this for a thousand dollars. His whole previous life is inconsistent with the latter supposition, while all that was related on the trial of his deportment after his marriage supports the idea that he was jealous even to madness. No man, not insane or utterly infamous, would have used such language concerning a wife as it is proved that this unfortunate man continued to do up to the very moment of his execution. He was not infamous; and our conclusion, therefore, is, as expressed by a multitude of medical witnesses, that he was a fit subject for a madhouse, and not the gallows.

Y.

REVIEWS.

ART. V.—*Urinary Deposits, their Diagnosis, Pathology, and Therapeutical Indications.* By *Golding Bird, A.M., M.D.*, Assistant Physician to, and Lecturer on Materia Medica at, Guy's Hospital; Licentiate of the Royal College of Physicians; late President of the Westminster Medical Society; Fellow of the Linnean Society of London; Corresponding member of the Philosophical Institute of Basle, of the Philosophical Society of St. Andrews, of the Medical Society of Hamburgh, &c., &c., &c. Philadelphia: Lea & Blanchard. 1845. 8vo. pp. 227.

The author of this volume is at once a chemist skilled in analysis, and a practitioner who has for years carefully noted diseases at the bedside. It is therefore manifest, that he is qualified in an uncommon degree to discuss the subject of urinary deposits, in which the phenomena belong as much to chemistry as to pathology. Such are the laborers from whom science is likely to derive the most valuable results, as to all the pathological conditions which involve chemical reactions. The mere chemist is not competent to the task of unfolding them; and the pathologist without the tests and reagents of the laboratory is unable to account for the series of changes. The union of the two, as it is found in Dr. Bird, is indispensable to a successful prosecution of such researches. Chemistry places in his hands instruments for detecting morbid products, and for estimating the departure of the various fluids of the body from a state of health, and clinical observation answers as a check upon the speculations of the laboratory. But to the work before us, of which it is our pur-

pose to attempt an abstract in this and a succeeding number of our Journal.

The author observes, in his preface: "In coming in contact with pupils in the course of my duties as a teacher of my profession, and in mixing with medical men, in practice, I have often found them in want of some work which would enable them readily to discover the nature of a deposit in the urine, and succinctly point out its pathological and therapeucal indications." It is as a manual for the practitioner in urinary affections that he presents his work to the profession, and in that character it has the highest claims to our attention. Its matter is condensed, and so arranged that ready reference may be made to any topic.

The following observations relative to the superficial examination of the urine in the sick room will be found of great value by the practitioner:

"A piece of litmus paper should be immersed in the urine, which, if acid, will change the blue color of the paper to red. Should no change occur, a piece of reddened litmus paper must be dipped in, and if the secretion be alcaline, its blue color will be restored; but if no change occur, the urine is neutral.

"Some of the urine should then be gently heated in a polished metallic spoon over a candle, or what is preferable, in a test-tube over a spirit-lamp, and if a white deposit occurs, albumen or earthy phosphates are present; the former, if a drop of nitric acid does not redissolve the deposit, the latter if it does.

"If the urine be very highly colored, and undergoes no change by boiling, the coloring matters of bile, blood, or purpurine are present. To determine which, pour a thin layer of urine on the back of a white plate, and allow a few drops of nitric acid to fall in the centre; an immediate and rapidly ending play of colors, from green to red, will occur if bile, but no such change if purpurine alone exists. Should the highly colored urine alter in color or transparency by heat, the presence of blood must be suspected.

"If the addition of nitric acid to deep red urine, unaffected by heat, produces a brown deposit, an excess of uric acid exists. If the urine be pale, immerse the gravimeter, and if

the specific gravity be below 1·012, an excess of water exists in the urine, but if above 1.025, the presence of sugar, or excess of urea is indicated. To determine which, place a few drops in a watch-glass, add an equal quantity of nitric acid, and allow the glass to float on some cold water; crystalization of nitrate of urea will occur in two or three minutes, if the latter exists in excess. Should this change not occur, the urine must be examined specially for sugar, which, it must be remembered, may exist in small quantities, without raising the specific gravity of the fluid.

"Should the urine be alcaline, add a drop of nitric acid; if a white deposit occurs, albumen is present; if brisk effervescence follows the addition of the acid, the urea has been converted into carbonate of ammonia.

"*Urine depositing a visible sediment.*

"If the deposit is flocculent, easily diffused on agitation, and scanty, not disappearing on the addition of nitric acid, it is chiefly made up of healthy mucus, epithelium, or in women, an admixture of leucorrhœal discharge.

"If the deposit is ropy and apparently viscid, add a drop of nitric acid; if it wholly or partially dissolves, it is composed of phosphates, if but slightly affected, of mucus. If the deposit falls like a creamy layer to the bottom of the vessel, the supernatent urine being coagulable by heat, it consists of pus.

"If the deposit is white, it consists of urate of ammonia, phosphates, or cystine; the first disappears on heating the urine, the second on the addition of a drop of diluted nitric acid, whilst the third dissolves in ammonia, and the urine generally evolves an odor of sweet-briar.

"If the deposit be colored, it consists of red particles of blood, uric acid, or urate of ammonia, stained with purpurine. If the first, the urine becomes opake by heat; if the second the deposit is in visible crystals; if the third, the deposit is amorphous, and dissolves on heating the fluid.

"Oxalate of lime is often present diffused through urine, without forming a visible deposit; if this be suspected, a drop of the urine examined microscopically will detect the characteristic crystals.

"Much of the little time required for the investigation thus sketched out, may be saved by remembering the following facts:

"If the deposit be white, and the urine acid, it in the great majority of cases consists of urate of ammonia; but should it not disappear by heat, it is phosphatic.

"If a deposit be of any color inclining to yellow, drab, pink, or red, it is almost sure to be urate of ammonia, unless visibly crystalline, in which case it consists of uric acid.

"The only apparatus and re-agents required for these investigations at the bedside are—

"A gravimeter, made small enough to float in an ounce of fluid.

"Red and blue litmus paper.

"A test-tube and watch-glass.

"Nitric acid."

The urine is affected by a variety of circumstances, and varies with the food and drink, and with the condition of the body. Dr. Bird recognizes three varieties of this secretion.

"Firstly, that passed some little time after drinking freely of fluids, generally pale, and of low specific gravity, (1.003—1.009) *urina potus.* Secondly, that secreted after the digestion of a full meal, varying much in physical characters and of considerable destiny: (1.020—1.028 or even 1.030,) *urina chyli vel cibi.* Thirdly, that secreted from the blood independently of the immediate stimulus of food and drink, as that passed after a night's rest, *urina sanguinis;* this is usually of average density, (1.015—1.025,) and presents in perfection the essential characters of urine."

To ascertain the specific gravity of the urine—

"If a gravimeter be not at hand, any small stoppered phial may be substituted. For this purpose, counterpoise the empty bottle and stopper in a tolerably good balance, with shot or sand. Then fill it with distilled water, insert the stopper, and carefully ascertain the weight of the water it contains. Empty the bottle, fill it with urine, and again weigh it; the specific gravity of the fluid will be readily found by merely dividing the weight of the urine by that of the water."

The chemical composition of the urine in health is as follows:

I. ORGANIC PRODUCTS.

1st. Ingredients characteristic of the secretion, produced by the destructive assimilation of tissues, and separated from the blood by the kidneys.	Urea, uric acid, coloring and odorous principles.
2d. Ingredients developed principally from the food during the process of assimilation.	Hippuric acid, lactic acid? accidental constituents.

II. SALINE PRODUCTS.

3d. Saline combinations separated from the blood, and chiefly derived from the food.	Phosphates, Chloride of sodium.
4th. Saline combinations chiefly generated during the process of destructive assimilation.	Sulphates.

III. INGREDIENTS DERIVED FROM THE URINARY PASSAGE.

5th. Mucus of the bladder.
6th. Debris of epithelium.

"Of these, the first class of ingredients can alone be considered as really essential to the urine, and characteristic of it as a secretion, the kidneys being the only organs which normally secrete these elements from the blood. The saline ingredients of the second class are met with in most secretions of the body, with the exception of the sulphates, which are rarely found except in the urine. The third class of elements is met with in all fluids passing over mucous surfaces."

The urea, which is the characteristic ingredient of urine, bears a striking proportion to the quantity of azote taken in the food, as appears from the following table, copied by our author from Dr. Lehmann, of Leipsic:

Diet.	Animal.	Vegetable.	Mixed.	Non-nitrogenised.
Urea in the urine, of 24 hours.	819.2	346.5	500.6	237.1

Among the other constituents of urine is sulphuric acid, which Dr. Bird maintains is found in too large a quantity to

be explained by its presence in the food, and which, therefore, he refers to the oxydation of sulphur, one of the elements of the protein compounds.

The urine, which in health, and while its constituents maintain their proper relation to each other, is clear and of a pale amber color, becomes turbid when any of its ingredients exist in a comparative or real excess. All the deposits found in it may be divided according to our author into the four following classes:

"*Class* 1.—Deposits composed essentially of ingredients formed directly or indirectly from the metamorphosis of tissues, or from the organic elements of food.

Uric acid and urates.
Uric oxide.
Oxalate of lime.
Cystine.

"*Class* 2.—Deposits composed of ingredients of inorganic origin; including—

Phosphate of lime.
Ammonio-phosphate of magnesia.
Carbonate of lime.
Silicic Acid.

"*Class* 3.—Highly colored deposits (black or blue) of doubtful origin,

Cyanourine.
Melanourine.
Indigo.
Prussian blue.

"*Class* 4.—Deposits consisting of non-crystalline organic products; including—

A. *Organized.*
Blood.
Pus.
Mucus.
Organic globules.
Epithelium.

B. *Non-organized.*
Milk.
Fatty matter.

c. *Possessing independent vitality.*
Spermatozoa.
Torulæ.
Vibriones."

The first deposit described is the *uric acid*, the diagnosis of which is thus given:

"When heated in the urine, the uric acid deposit does not dissolve; the crystals merely become opaque. It generally becomes more distinct from the solution of urate of ammonia, which is frequently mixed with it, and sometimes completely conceals it from view. Hence the best mode of discovering this deposit, is to warm urine, turbid from excess of urate of ammonia, in a watch-glass; the acid becomes visible in the centre of the glass, as soon as the urate dissolves. Heated with liquor potassæ, the uric acid deposit dissolves, from the formation of an urate of potass of sparing solubility. Hydrochloric and acetic acids are without any action, but the nitric readily dissolves it, and by careful evaporation a residue of a beautiful pink color becoming of a rich purple, on being laid over the vapor of ammonia, is left. This colored residue is the murexid of Liebig, the purpurate of ammonia of Dr. Prout. Exposed to heat in a platinum spoon, the uric acid deposits burn, evolving an odor of bitter almonds; and finally leave a small quantity of a white ash, which generally contains phosphate of soda or lime.

"*Characters of urine depositing uric acid.*—When urine contains an excess of this acid, it generally lets fall crystals on cooling, uric acid being very seldom deposited before emission. It usually possesses a deeper amber tint than natural, sometimes being of a reddish brown color. Very high colored urine, however, seldom deposits uric acid until after the addition of a stronger acid. Urine never lets fall spontaneously all its uric acid as a deposit, for after being filtered from a sediment of this substance, the addition of a drop of nitric acid generally causes the deposition of an abundance of crystals of uric acid in a few hours.

"Urine depositing uric acid always reddens litmus paper, and often contains an excess of urea, so as to crystalize slowly when mixed with nitric acid in a watch-glass. Its specific gravity is generally rather above 1.020. An exception to the above character is presented by the pale urine of infants at the breast, among whom deposits of uric acid are

common. These often appear as a yellow crystalline sand, whilst the supernatant urine is frequently of low specific gravity, often 1.006, as pale as water, and nearly destitute of urea."

Urate of ammonia, another of the urinary deposits, is recognized by the following characters:

"These deposits vary in color from absolute whiteness to a pale fawn color. which is the most frequent tint, brick-red, pink. or purple. All these various colored deposits present certain characters in common; they never appear in the urine until after it has cooled, and disappear with the greatest readiness on the application of heat. The purple deposits require rather a higher temperature for solution than the other. The addition of liquor ammoniæ, or liquor potassæ, immediately dissolves deposits of urate of ammonia. Their chemical constitution is shown in a very interesting manner by examining a drop of the turbid urine with the microscope between two plates of glass; an amorphous powder will be alone visible, unless uric acid be present; then add a drop of hydrochloric acid, the turbidity will disappear, and in a short time crystals of uric acid will be seen growing in the fluid, the ammonia having deserted this substance to unite with the acid which had been added.

"*Characters of urine depositing urate of ammonia.*—The following modifications are most important.

"1st. A pale urine of low specific gravity (1.012), becoming opaque on cooling from the deposition of nearly white urate of ammonia, which, instead of readily falling, forms rope-like masses in the fluid, and presents on a superficial view so much the appearance of muco-pus as to be mistaken for it. Its disappearance on the application of heat at once will discover the error.

"2d. A pale amber colored urine of moderate density (1.018), which on cooling lets fall a copious fawn colored deposit, resembling bath-brick grated into the urine, disappearing with the utmost readiness on applying a gentle heat. This deposit is of frequent occurrence, is often very transient, and is so constantly an attendant on the slightest interference with the cutaneous transpiration, that a 'cold' is popularly diagnosticated whenever this state of things exists.

"3d. Whenever febrile excitement prevails, the urine becomes concentrated, rises in density (1.025.) and deposits on

cooling a reddish brown sediment, constituting the well-known lateritious, or brick dust sediment. This variety of urine generally becomes turbid on the addition of a drop of nitric acid, not from the coagulation of albumen, as has been frequently erroneously supposed, but from the precipitation of uric acid. This is always in minute microscopic crystals, notwithstanding the amorphous appearance it presents to the naked eye.

"4th. In well-marked affections of the portal circulation, especially when connected with organic disease of the liver or spleen, or when suppuration, particularly of a strumous character, is going on in the body, the urine is generally found to possess in many instances a deep purple or copper color, often verging on crimson, so as to have led to the idea of blood being present. These deep tints appear to me to depend upon the presence of an excess of purpurine.—Whenever a deposit of urate of ammonia occurs in such urine, either spontaneously or by immersing it in a freezing mixture, it combines with the pink pigment forming a kind of lake, and which is often so abundant as not to entirely disappear by heat, until the urine is diluted by the addition of water. These deposits do not exhibit their delicate tints until after being collected in a filter; they readily give up their coloring matter to alcohol, which leaves their urate of ammonia nearly unchanged."

[TO BE CONTINUED.]

ART. V.—*Elements of Pathological Anatomy;* Illustrated by colored engravings and Two Hundred and Fifty Woodcuts. By SAMUEL D. GROSS, M.D., Professor of Surgery in the Medical Institute of Louisville; Late Professor of Pathological Anatomy in the Medical Department of the Cincinnati College; Surgeon to the Louisville Marine Hospital, etc., etc. *Second Edition, thoroughly Revised and greatly Enlarged.* Philadelphia: Ed. Barrington & Geo. D. Haswell. Louisville: James Maxwell, jr. 1845. Super-royal 8vo. pp. 822.

The words, "thoroughly revised, and greatly enlarged," however loosely applied in other instances, mean something on the present occasion. On comparing the former edition of this work with the present, it will be found not only that

a large amount of matter, equal we are told to 300 pages, has been added, but that there is scarcely a page, or even a paragraph, which has escaped the "forked pursuit" of the author's pen, which has not been retouched, changed, condensed—in short, to revert again to the language of the title-page, *revised.* Indeed the labor expended on this revision, and in the collocation and arrangement of new facts, must have been little short of what would be required to write for the first time an entire volume. Evidently, though, it has been a labor of love, on the part of the author, rather than a task; and he was fortunate in securing publishers who seem to have entered into his own spirit. The mechanical execution of the work is deserving of the highest praise. The typography is beautiful. The illustrations, whether lithographs or xylographs, are, with very few exceptions, of the first order of merit, and many of them are really superb; the colored lithographs, especially, are superior to any we have ever seen from the press of this country. In short, as to all the externals, it is a volume of rare beauty and excellence, and one of which the publishers may well feel proud.

As in the first edition, Prof. Gross divides his treatise into—1. *General Pathological Anatomy*, wherein is discussed all that the lesions of the different organs and textures of the body have in common with each other; and 2. *Special Pathological Anatomy*, which presents us with the morbid anatomy of each particular organ and texture. The first part was noticed at some length in the second volume of this Journal (first series, 1840), and we should pass it over on the present occasion but for the fact that the author has added several new chapters which call for some notice, and that the doctrines which it contains not only lie at the very foundation of his system, but pervade every part and portion of it. In thus doing justice, however, to the author, we run the risk of doing injustice to the reader. We shall necessarily travel over ground familiar to the latter, point out to him that which was pointed out before, repeat to a greater or less extent that which has already been brought under his notice.

But we beg him to remember, that a really good story is never the worse for a second telling, nor a good book for a second reading—above all, that it is the repetition of error which becomes dangerous, not the repetition of truth.

As might be expected from the title, Prof. Gross deals very sparingly in speculation. He is disposed to stop where a good eye and a steady hand will no longer avail. He does not detain us by flickering and fanciful inquiries into the essence of disease. The solids and fluids of the body, he reminds us, are intimately blended and associated, have a mutual dependence, a reciprocal influence, and health seems to consist in a certain concert or harmony between the two. When this harmony is destroyed, when the fluid and solids are, as it were, arrayed against each other, when the latent sympathies which bind organ to organ, and texture to texture, are aroused and brought into play, we have *disease*. Disease, now, in the common acceptation, is either functional or organic. As used by most pathologists the word *organic* refers to *permanent* changes in the condition of an organ. But Prof. Gross means by it not only the permanent, but also every *temporary* alteration which the tissues or organs experience in a state of disease. As meaning the same thing, he employs occasionally the word structural. Used in this sense, it is exceedingly questionable if a functional disease exists, "a mere aberration of the physiological state of a part, without any change in its anatomical elements."

We come now to the two fundamental propositions of the author:

"Bearing in mind the above definition, it may be assumed, as a general proposition, liable to few exceptions, that all organic diseases, whatever be their seat or extent, are the result of inflammatory action, either of an acute or a chronic kind. To many, this proposition may be startling; nevertheless, if it be carefully examined, it will be found, I doubt not, to be grounded on fact. The truth of this remark will appear more evident as we proceed.

"The second proposition that may be stated is, that every inflammation, irritation, or morbid action, is originally of a

local nature; that is to say, it always makes its impression in the first instance upon some particular part, texture, or organ. After this inflammation has continued for a longer or shorter period, it often happens that it extends to and implicates other structures. If, for instance, the mucous membrane of the stomach be fretted, the morbid action accruing from this cause will be confined at first to that lining; or, in more comprehensive terms, the disease will be strictly local in its character: by degrees, however, as the disorder progresses, the adjacent parts, such as the submucous cellular tissue, become affected; and, spreading still further, it next invades the muscular fibres of the organ, and, finally, the peritoneal covering. It is in this manner that most affections, which are originally local, extend their sphere of action so as to become general, whether they be considered simply in reference to one organ, to several, or to a great number of them."

Inflammation is greatly modified, as to intensity, progress, and mode of termination, by temperament, age, sex, habit, climate, season, the nature of the exciting cause, and the character of the tissue affected. The *period* of life most obnoxious to it is from the first to the tenth year. The skin, the mucous membranes, the lymphatic system, and the arachnoid membrane, are particularly liable to suffer in children; the lung and its coverings, the brain, liver, heart, the veins and arteries, in adults. The genital organs rarely suffer before puberty; but towards the decline of life, affections of the uterus, ovaries, breasts, and testicles, are frequent. Inflammation of the brain, spleen, heart, and arteries, is most common in *men;* that of the peritoneum, veins, and lymphatics in *women.* The *seasons* most favorable to it are winter and spring; it is more common in moist situations than dry, in cold and hot climates than in temperate. Inflammation varies in rapidity and intensity, and to express these differences our author retains the old terms *acute* and *chronic.* He objects to the word *sub-acute*, and employs instead the terms mild, slight, or moderate. Its progress, whether to reparation or the contrary, is much the most rapid in highly vascular and nervous organs. The affection may be *latent*, as in certain forms of

pneumonia, arachnitis, and in typhoid fever. It may also be *intermittent*, as in some neuralgias, in chilblains, &c.

"The disease before us does not occur with equal frequency in all the organs and tissues of the body. There are some parts, in fact, in which it has been doubted, though, as I think, without any foundation in truth, whether this affection ever takes place. Such are the nails, the epidermis, and the hairs. These structures are supposed, by general anatomists, to be destitute of vessels, and, therefore, incapable of performing any vital action. This, however, is merely a conjecture; the fact remains to be proved, and, for my own part, I feel as certain that these textures are susceptible of inflammation, as that the liver is, the stomach, or any other organ.

"The cellular, mucous, serous, and dermoid textures are particularly prone to inflammation. In children, this is different. In them, the cutaneous and mucous textures are infinitely more liable to inflammation than the cellular tissue and serous membranes—the frequency of their attack being, as nearly as can be, in the order here stated. It is here that the disease can be studied with the greatest advantage, both as it respects its phenomena and modes of termination, inasmuch as it is usually well marked, intense in degree, and rapid in its progress. The synovial membranes, the fibrous envelopes, the bones, ligaments, and cartilages, with the muscles and their tendons, inflame with difficulty; but when the disease has once fastened itself upon them, they readily yield to its influence, the sufferings are often excessively severe, and the consequences very serious. The bloodvessels, nerves, and absorbents, are all more or less liable to phlegmasia. The conservative powers of these structures, especially of the former, is remarkable, and is strikingly evinced in cases of gangrene, where, as will be hereafter shown, they frequently retain their vitality amidst the half putrefied mass.

"Of the organs, some are more ready to take on inflammation than others. Those which are most frequently affected, at least in this country, are the lungs, spleen, liver, uterus, and brain. The heart, ovaries, thyroid body, pancreas, prostate gland, testicles, and kidneys, are comparatively rarely the seat of this disease.

"Respecting *specific* inflammation, some parts, again, are more prone to this disease than others. Thus, erysipelas commonly attacks the skin; anthrax, the subcutaneous cellu-

lar tissue; rheumatism, the fibrous envelopes of the extremities; tubercle, the lungs; scirrhus, the glandular organs. In the skin, numerous varieties of inflammation, both of an acute and chronic kind, are observed, that never occur in any other of the elementary textures and systems of the body. To this category specially belong the different species of eruptive and scaly diseases, which have their seat, for the most part, in the superficial portion of the dermis, the net-work of Malpighi, and the cuticle.

"Although we have employed here the term 'specific,' yet it must be confessed that it is one of very equivocal signification; and, in order to remove all ambiguity respecting it, it will be necessary to determine, if possible, the sense in which it is understood by professional men. Almost all surgical authors agree in stating that there are two descriptions of specific inflammation; one of which is produced, it is alleged, by a peculiar condition of the constitution, and the other by the action of a special virus. Under the influence of the first are developed what are denominated the heterologous formations, such as tubercle and scirrhus, together with gout, rheumatism, and erysipelas; under that of the latter a disease which manifests a particular train of phenomena, which exerts its effects only upon a particular set of structures, and which can only be excited by particular causes. To such a classification, surgically considered, there is no special objection; but, viewed philosophically, or in reference to the laws of healthy and abnormal action, there is no ground whatever for such a distinction. All morbid action, indeed, whether acute or chronic, is, properly speaking, specific, or, what is the same thing, exerts a particular influence in relation to the particular structure which it implicates, being accompanied by particular symptoms and particular products."—24, 25.

The author next proceeds to discuss the phenomena, seat, and especially that *questio vexata*—the nature of inflammation. Before entering upon these matters, however, we beg the reader's attention to the following passage:

"The *phenomena* usually enumerated as marking inflammation are redness, heat, pain, and swelling. These signs, however, are not constantly present, and, as might be supposed, they are liable to vary according to the nature of the exciting cause and the character of the part affected. But

these are not the only circumstances which occur in inflammation: in every case there is a perversion of the vital actions, attended with an altered state of the nutritive and secretory functions. To affix to these several conditions their respective value, it will be necessary to allot to each of them a considerable share of attention. Most writers, until recently, attached too much importance to some of them, and too little to others; whilst they entirely overlooked the fact that they are always greatly modified by the nature of the tissue in which the malady, of which they are the indices, is located. If we regard the four phenomena, redness, heat, pain, and swelling, referred to above, as being essential to the process, it will be at once perceived that there can be few inflammations; and we shall therefore be obliged, in describing diseases, to invoke other names, such, as irritation and fever; a blind adherence to which has unfortunately tended too much to retard the progress of pathological science. Boerhaave enumerated one hundred and fifty varieties of fever: had he enumerated a thousand more he would have been much nearer to the truth, for he might then have specified nearly every form of inflammation, whether occurring in the external parts of the body, or in the interior organs. The word 'fever' is a conventional one, and is employed to designate, not the nature or seat of a disease, but simply the phenomena which it manifests. So also with the term irritation. Mr. Travers and others have written extensive treatises on this subject; but have they pointed out any thing concerning the essential character of this disease? have they told us anything of the peculiar condition of the nervous and vascular systems which accompanies it? So far as I am acquainted with their labors they have not: and yet men continue to talk about irritation, with its numerous varieties, as if they had the most perfect knowledge of its nature, seat, causes, and symptoms. A course such as this cannot but have a most dangerous tendency in practice; for what one physician describes as a fever, another will consider simply as an irritation, a third as an inflammation, and in this way no principles can ever be introduced as standards of treatment. The practice of medicine must continue to ebb and to flow with every tide of professional opinion.

"The time, however, cannot be far off, when the term fever must be entirely discarded from our books, and diseases named according to the tissues which they implicate. Then, and not till then, can it be expected that the laws of deranged action will be properly interpreted, or fully compre-

hended. All diseases, I feel confident, will ultimately be found to have a local origin and habitation; and if this should ever be proved to be true, the whole class of febrile maladies, with its hundred varieties and subdivisions, will cease to have a place in our medical treatise."—25, 26.

Without being as sanguine as the author, we still have a hope that his anticipations may be realized.

The *seat* of inflammation is in the capillary vessels. By this term we are to understand, not a set of vessels perfectly independent of the remainder of the vascular system, but "minute tubes which are every where interposed between the arteries and veins," communicating directly with both. Various opinions have been held concerning their structure. Many have supposed that they were membraneless; in other words, that the blood, after leaving the arteries, coursed hither and thither in the substance of the tissues, in channels formed out of the tissue itself. Bichat, and after him Beclard, taught that they were formed of a single coat continuous with the inner arterial and venous coat. Our author argues from analogy that the three tunics distinguished in the larger arteries and veins, are continued—excessively attenuated of course—into the capillary vessels. Recent investigations with the microscope have shown this to be the fact. Wedemayer states that they can readily be seen in vessels as large as the tenth of a line; Schwann discovered transverse fibres in the smallest capillaries of the mesentery of the frog; and Henle, Mueller, Baly, and others, have all seen the membranous walls, delicate but distinct, sometimes with oval bodies like epithelium-scales in their substance.

"Viewed in reference to their caliber, the capillaries are divisible into two classes. The one embraces those minute tubules which, though invisible to the naked eye, are found, when examined with the microscope, to be capable of carrying a continuous stream of blood, so as to give the part in which they are located a red appearance; the other includes those delicate vessels, the cavity of which is so small as to admit only a single globule at a time, and which it is extremely difficult to detect even with a good magnifier. By reflect-

ing for a moment on the size of the red particles of the blood, estimated by most writers to be about the three thousandth part of an inch, the reader will be struck with the great tenuity of these vessels."—32.

The size of the capillaries is in general proportioned to that of the red globules of the blood. Their diameter appears to be uniform in the same organ, but varies in different organs from $\frac{1}{1000}$ to $\frac{1}{5000}$ of an inch, the mean being between $\frac{1}{3700}$ and $\frac{1}{1850}$ of an inch. The smallest, according to Weber, are found in the brain, where they are $\frac{1}{4700}$ of an inch. In the kidneys they are from $\frac{1}{2500}$ to $\frac{1}{1592}$; in the mucous membrane of the large intestine from $\frac{1}{2794}$ to $\frac{1}{1647}$; in the skin $\frac{1}{1150}$; in inflamed membrane from $\frac{1}{3840}$ to $\frac{1}{1923}$. In very young animals they are larger than in the adult, corresponding again to the red particles, which are larger in the former. They are smaller than any other tubes or ducts of the body. The biliary ducts, and the tubuli of the kidney, are several times larger than the capillary vessels. The primitive muscular and nervous fibres are a little smaller than the finest capillaries. These vessels are not equally numerous in all parts of the body.

"The parts which form the basis of the skeleton, together with the tendons, the cellular substance, the epidermis, nails, and hairs, have, comparatively, few of these vessels after the body has attained a certain degree of developement. In the early stages of life, however, most of these structures are highly vascular, and can be readily injected. The serous membranes appear to possess very few capillaries; in the healthy state, in fact, none can be discerned in them; yet, when inflamed, they are rendered highly vascular, and thousands of minute vessels, which before were invisible, are now perfectly distinct, giving the affected part a beautiful reddish aspect. The capillaries abound in the mucous membranes, the skin, the liver, spleen, lungs, and kidneys. They are also very numerous in the heart, the muscles of voluntary life, in the brain, and in the pia mater."—32.

The capillary vessels form a net-work in the meshes of which lies the proper substance of the organ or tissue. The

meshes differ in size and shape in different parts. They are smallest in the lungs, and in the choroid membrane of the eye; they are likewise very close in the mucous membrane of the lungs, liver, and kidneys, and in the true skin. In the lung the interspaces are a little smaller than the capillaries; in the kidney, the mucous membranes, and the cutis vera, the diameter of the capillaries is to that of the interspaces as one to four, or one to three.

The capillaries, thus constituted and arranged, are important agents in nutrition, secretion, calorification, and absorption. Fluids pass into them and out from them, not through open extremities, which they have not; nor yet through *exhalants*, or visible openings in their parietes, of which they are equally destitute; but in consequence of the porosity which they possess in common with all animal membranes. They are pre-eminently endowed with nerves, which must, of necessity, be involved in any affections of the vessels. To show the joint agency of the nervous and vascular systems in the production of inflammation, the author refers to the experiments of Magendie, Brodie, and Philip. The former cut the fifth pair of nerves at the varolian bridge, in the rabbit, and saw it followed by inflammation of the surface of the eye. When the nerve was cut at the petrous portion of the temporal bone, the inflammation was still more violent, and resulted in total destruction of the eye. Division of the pneumo-gastric nerves was followed by engorgement of the lungs and the effusion of serosity into their substance, and by inflammation of the stomach. Brodie tied the brachial plexus of nerves, and the remote parts of the limb were attacked by inflammation, which resulted in gangrene.

In the author's view the first step in the process of inflammation is an altered sensibility of the part, produced by some hurtful agent. This local impression being reflected upon the cerebro-spinal axis, and through this upon the heart, the latter is incited to increased action, and more blood flows to the part concerned than it naturally receives, at the same time that the capillaries are dilated.

"The phenomena above alluded to, namely, the preternatural influx of blood, and the dilatation of the capillaries, can be easily detected by exciting irritation in the mensentery of a rabbit, the tale of a tadpole, the fin of a fish, or the web of a frog's foot, parts which are perfectly transparent, and therefore well calculated for the purpose. On viewing these structures with a microscope, in the sound state, numerous channels will be observed filled with blood, the red globules of which roll along in the most regular and beautiful order. If they be now irritated with spirits of wine, hot water, or diluted acid, the little rivulets just referred to, will be found to become dilated, from the manner in which the blood is crowded into them by the heart, which, in order to remove the local difficulty, is excited into sympathetic action. In a few minutes hundreds of vessels, which were previously invisible, will be seen shooting out in different directions, and connecting themselves with the sides of those that appeared in the first instance. These are not new channels, but old ones appertaining to the second class of capillaries, which are rendered evident by the intromission of red particles, which are either excluded in the healthy state, or pass along in so slow and gradual a manner as to elude the eye of the beholder. The little bodies which are thus introduced do not circulate, at first, with the same facility as in the other parts of the body; for, as the dilation of the little rivulets takes place by degrees, they have to force their way, and hence, after having advanced a short distance, they retreat slightly immediately after each pulsation of the heart, rebounding, as it were, upon each other. In this manner they travel on, surmounting every obstacle, until they finally reach the corresponding capillary veins, into which, as they are considerably more capacious, they rush, as into a vortex. * * * * *

"Such are the initial steps of inflammation. If the process be now checked by the removal of the exciting cause, the phenomena referred to gradually disappear, and the part recovers its natural tone and condition.

"If, on the other hand, the inflammation be allowed to proceed, another series of changes may be witnessed, surpassing, if possible, in point of interest, those just described.—The circulation now completely ceases; the blood assumes a dark modena color, and the coats of the vessels are rendered so soft as to be liable to give way on the slightest force. With these alterations the healthy functions of the part are suspended: it is red, hot, painful, and tumid; and its molecular intervals are filled with serosity, lymph, or pus. In this stage of the malady, the capillaries contain thick, viscid,

partially clotted blood, which adheres with great tenacity to their inner surface, and opposes an effectual barrier to artificial injection, or to the removal of the fluid by pressure or ablution. * * Occasionally, again, the blood escapes from the vessels, and, forcing its way along the cellular tissue, forms new channels, through which it afterwards continues to circulate. This interesting phenomenon, which has been frequently noticed by Kaltenbrunner in the inflamed mesentery of the rabbit, is strictly analogous to what occurs in the organization of adventitious membranes, a subject to which the attention of the reader will be subsequently directed.

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"Another striking phenomenon is the distended condition of the larger vessels leading to the inflamed part. When the disease is at its height, the congestion often extends to a considerable distance; the blood is unnaturally dark, thick, and viscid, and artificial injection is difficult, sometimes impracticable."—34, 35, 36.

This description of the changes in an inflamed part, though brief, is in the main correct. It is right, however, to observe, that the stagnation of blood is partial, occurring here and there in points only of the affected part, as if the *onus* of the inflammatory action fell more particularly on these points. It is not universal unless gangrene is imminent. It must be remembered, also, that this description answers to traumatic inflammation.

Let us go back now (for, to suit our own convenience, we have slightly changed the author's arrangement) to the phenomena usually enumerated as marking the occurrence of the changes just described. And first of the discoloration, which varies from the slightest rose to the deepest purple.

"There are are some tissues which naturally contain little blood, or which convey only serosity, and these, of course, are never much discolored when affected with disease. The tendons, ligaments, and cartilages are seldom reddened, no matter what may be the intensity of the inflammation. In the fibrous membranes, such as the pericardium, the dura mater, and sclerotic coat of the eye, the discoloration is usually of a lilac or purple hue, with a shade of blue. In the mucous lining of the alimentary tube, the redness, in the early stage

of the disease, is bright and florid, like that of arterial blood; but, as it progresses, it often assumes a dark violet, or black appearance, especially when it is about to pass into gangrene. A striking exemplification of the truth of this remark is afforded by the mucous membrane of the fauces in the malignant form of scarlatina. In the beginning of this disease, the tonsils and adjacent parts are of a bright red, which is often, in the course of a few hours, converted into a deep purple. In the skin, the redness is sometimes of a scarlet color; at other times, it has a yellow tinge, with various shades of mahogany. The yellow color is most commonly witnessed along with derangement of the liver; hence the frequency of its occurrence in the latter stages of erysipelas and anthrax. In inflammation of the pleura and peritonæum, the redness is, at first, of a lilac hue; afterwards of a scarlet, brownish, or violet. In the arachnoid there is rarely, if ever, any perceptible discoloration.

"Inflammation of the spleen and liver is attended with a purple hue: when the brain is affected, the color is generally rosaceous, cineritious, or like the lees of wine. The salivary glands are usually of a pink complexion; the kidneys of a deep violet; the testicles and ovaries of a reddish yellow. In the lungs the color varies from the slightest rose to the deepest purple."—26.

The discoloration assumes various forms, as the arborescent, the capilliform, the punctuated, and the blotch-like. Sometimes, in the inner coat of the arteries for example, it is uniform, as if it were dyed into the part. In all cases it is owing to the unnatural influx of red globules, and is of a brighter or darker hue, according as the globular movement is quick or slow.

Hunter's experiments led him to believe there was no preternatural development of *heat* in inflamed structures. Subsequent investigations have shown that the reverse sometimes obtains. According to experiments made by the author, the average temperature of the blood in health is 96° (usually stated at 98°) whilst in disease it sometimes falls as low as 92°, or rises as high as 104°. The heat of the body is certainly subject to modifications. Home found the oviduct of a frog ready to spawn two degrees hotter than the heart; and,

according to Dunglison, the uterus during labor may have a temperature of 104°. The doctrine of the day is, that animal heat is generated by the union of oxygen with carbon and hydrogen in respiration and the organic processes. Nevertheless, as our author remarks, it must be influenced by the nervous system, and hence any alteration in the innervation of a part would be attended by a change of heat, either *plus* or *minus*. In erysipelas, furuncle, and anthrax, the thermometer has been seen as high as 107°. In an inflamed scrofulous tumor Becquerel and Breschet found the temperature raised 5½° above that of the body. In the ligaments, bones, cartilages, fibrous membranes, and tendons, the extrication of heat is slight.

Pain, one of the most important symptoms, varies, like redness, according to the nature of the part affected. It is most keenly felt in the parts most highly endowed with nerves and vessels. Bones, ligaments, tendons, cartilages, and fibrous membranes, do not evince much sensibility in the healthy state, but are exquisitely sensitive when inflamed. In the different viscera, inflammation of the coverings is far more painful than that of the proper structure. In inflammation of mucous membranes pain is sometimes excessive, sometimes absent; the ulcers in the ileum and colon during phthisis, afford an instance of the latter. Pain is much greater at the mucous outlets, where these membranes join the skin, and is owing to such parts being supplied with nerves from the cerebro-spinal instead of the ganglionic system. Pain varies in character: it is persistent, intermittent, or periodical; is sharp and lancinating in the pleura, acute and pulsatile in the cellular tissue, obtuse and gravative in the glandular organs, prurient and smarting in the skin, dull and gnawing in the bones, throbbing when pus is about to be formed.

Swelling, caused by engorgement of the vessels and the effusion of new matter—serum, lymph, pus, or blood—varies according to the vascularity and laxity of the part. It is well marked in the cellular substance, but is quite absent in the skin, ligaments, tendons, muscles, serous and fibrous textures.

cartilages, bones, and in many of the viscera. In the mucous membranes, it occurs at the vulva, mouth of the larynx, and in the ocular conjunctiva, though here it is really in the submucous cellular tissue.

"From the hasty survey which has been taken of these symptoms, we are authorized to conclude that they are by no means entitled to the stress which has been generally placed upon them by writers. In many instances there is an entire absence of at least one or two of them, and yet the part is absolutely in a state of high inflammation. How often does it happen, that enteritis is lighted up, and goes on to destructive disorganization, without even the slightest indication of its presence! In arachnitis, the only symptom, frequently, is severe cephalalgia, with delirium and partial paralysis. The patient dies, and, on examination, the membrane is found to retain its natural thinness, and to be as free from injection as in the sound state. In such a case, should there be but little effusion of serum and fibrin, a superficial observer might conclude that there never had been any inflammation, or that what he saw was the result solely of irritation. The injurious tendency which such a mode of procedure would exert on the practice of medicine is too obvious to require any comment in this place. In reasoning on this subject, the physician should constantly bear in mind the important fact, that the symptoms which have been enumerated above, although they are frequently all present, are not necessarily so, and that the absence of some of them is not a sufficient proof that there does not exist inflammation. By such course alone can he expect to escape error."—29, 30.

But there are other symptoms still, insisted on by the author as attending all inflammations. "Perversion of the vital function" is rarely absent, and is generally greatest when inflammatory action is most severe, from which period it gradually subsides. Sometimes it is the only symptom present. Gastritis, for example, will be shown by nothing but frequent irritability; duodenitis, by arrest of chylification; hepatitis, by scanty and vitiated bile; nephritis, by the absence of urinary secretion. The function of absorption is also affected: strychnine in solution has been applied with impunity to an inflamed serous membrane, and prussic acid to the conjunctiva,

the schneiderian membrane, and the mucous lining of the vagina. In other cases the alteration is not so extreme. Morphia applied to the skin inflamed by a blister tranquillizes the system; diluent drinks, such as gum water, moderately given, are absorbed by the inflamed stomach. Nutrition is likewise perverted: an inflamed organ becomes atrophied, the particles which nourish it being withheld; or the molecular arrangement is changed, there is an alteration of color and consistence—in other words, there is softening.

Leaving the subject of inflammation for a time, it is necessary to inquire into the causes capable of producing congestion and discoloration of the tissues "immediately prior to, during, or subsequently to, the extinction of life." The causes acting before death may be referred to mechanical obstructions to the free return of blood, and to the effects of stimulating agents taken as food, drink, medicine, or poison. The latter will be considered in another part of the work. As to the former, the obstruction may arise from a tumor, some morbid deposit, or the obliteration of a vessel; or, what is still more common, from organic lesion of the cardiac, the pulmonary, or the aortic valves, the ariculo-ventricular apertures, or the mouth of the pulmonary artery and aorta. All these are unquestionable causes of congestion, but, the congestion being permanent, it is by no means so clear, in the opinion of the author, that it does not induce actual inflammation.

"However this may be, it seems to me that pure, uncomplicated congestion, in whatever parts of the body occurring, must uniformly depend upon one or other of the following circumstances: 1. Obstruction of the heart and great vessels, by the formation of fibrinous concretions during the last struggles of life. 2. Partial paralysis of the heart, disqualifying it, to a greater or less extent, for carrying on the circulation. 3. Asphyxia, whether induced by actual strangulation, the inhalation of deleterious gases, or difficult dissolution in ordinary sickness."—37.

The congestion arising from the first two classes is generally partial, and limited to the more dependent portions of the

body. That arising from asphyxia pervades the entire body, and is very conspicuous in the skin, lungs, heart, and great vessels, and where the skin and mucous membranes unite. In both cases the discoloration is of a dull bluish tint, and is more uniform than that of inflammation.

After death, discoloration may be produced by gravitation of the blood, and by its transudation, or that of some of its elements, through the walls of the vessels. The discoloration arising from the former cause (the *hypostatic hyperæmia* of the French school) is usually situated on the posterior parts of the body, but may be produced in any situation by placing the cadaver in a particular position. It is most conspicuous in organs where capillary vessels abound; and, as the subject usually lies, is observed in the posterior part of the lungs, liver, and kidneys, in the lobes of the cerebellum and those of the cerebrum, in the occipital portion of the cerebral coverings, and their continuation in the spinal canal, in the most dependent part of the stomach, and the folds of intestine which are most dependent, and in the skin on the back part of the neck, trunk, and extremities. The hue varies as in inflammation from slight rose to deep red, but is generally fainter and more uniform, and may be removed by pressure or ablution. It depends on dark-colored blood, generally fluid, sometimes partly coagulated, contained in the smaller veins, and these can generally be traced to larger vessels filled in the same way.

Discoloration from transudation is generally connected with the putrefactive process, and hence, unless in warm wet weather, is rarely observed until twenty-four hours have elapsed. The fluid (which is the serum and the coloring matter of the red globules rather than the blood itself) after percolating the vessels, is diffused among the surrounding tissues, rendering them unnaturally red and moist; or forms red bands, patches, streaks, points, or aborescent lines; or it may collect in the different serous cavities, as in the cerebral and spinal arachnoid, the peritonæum, or the pleura. The redness is generally of the scarlet hue; in the lining membrane of the heart,

arteries, and veins, it is a mere scarlet stain, frequently uniform, sometimes figurate, and readily distinguishable from inflammation by the absence of other alterations. The arborescent redness is frequently observed in the stomach and bowels, where it corresponds to the large veins; the same appearance may be observed in the skin of the posterior parts of the body. This scarlet hue is at length lost in the muddy, brownish, and greenish appearances of advanced putrefaction—a change which takes place soonest in warm weather and in plethoric subjects. Another source of cadaveric coloration is exposure to atmospheric air. Warm weather and the direct solar rays are most favorable to its production; it is observed in the spleen, liver, kidneys, and heart, the inner arterial and venous coat, and the alimentary mucous membrane. The redness is of the bright arterial hue, and is diffused over a large surface. In the stomach and bowels it sometimes assumes the appearance of small florid specks. It is attributed to absorption of atmospheric oxygen, and, by immersion in a gentle stream of water or in dilute vinegar, is changed to a dark purple.

The physician should be able to distinguish the congestion and discoloration produced by these causes from those of inflammatory origin, but it is not always easy.

"Should there be merely some degree of redness, with ramiform injection, traceable to some large venous trunk, unaccompanied by effusion, softening, opacity, induration, thickening, or ulceration, the presumption is strong that these appearances are the result solely of congestion, produced by some one or more of the causes previously pointed out. If, on the other hand, the discoloration and vascularity are associated with some, or all, of the anatomical characters here indicated, it must be concluded that they are dependent upon inflammatory irritation, since they afford the best possible evidence of the existence of that lesion."—39.

After a glance at some of the hypotheses that have been put forth concerning the nature of inflammation, Dr. Gross proceeds to treat, in distinct chapters, of the different terminations of the process. In reference to *acute* inflammation

these are, effusions of serum, lymph, pus, and blood, together with softening and gangrene. Except the last, these are in fact *conditions* of inflammation, not terminations, and indicate so many degrees of the process, constituting a sort of "phlegmasial scale." The chief conditions or terminations of *chronic* inflammation are, ulceration, granulation, cicatrization, and induration. Hemorrhage, softening, and gangrene, may likewise attend the chronic variety, but the occurrence is rare.

Chapter II—Is devoted to the *effusion of serum.* This is one of the most constant attendants of inflammation, whether simple or specific, acute or chronic, mild or intense. It is most frequently seen in the cellular tissue, in organs where that tissue is abundant, and in the serous cavities. The denser structures, as tendons, ligaments, aponeuroses, cartilages, and bones, the liver, kidney, womb, and prostate gland, afford very little. The brain, spinal chord, nerves and vessels, furnish it very sparingly. The mucous membranes in certain diseases pour out a large quantity; in the skin, it is observed in the vesications preceding gangrene, and in those consequent on certain irritants. It is likewise contained in hydatids and serous cysts.

The effusion is essentially the same in whatever organ or texture it occurs, and both in physical properties and chemical composition is analogous to the serum of the blood. Like it, it is sometimes as colorless as the purest rock-water; then it has various shades of yellow and red, from admixture with the coloring matter of the red globules and that of the bile. Occasionally it has a greenish tint, and that poured out by the peritonæum, in cases of strangulated intestine, is of the color of coffee-grounds. Like the serum of the blood, it consists of a large quantity of water (800 or 900 parts in 1,000) a variable quantity of albumen, some muco-extractive matter, muriate and sulphate of soda, phosphate of lime, iron, and magnesia. The quantity of albumen varies from eighty parts in a thousand to a mere trace. In the fluid of hydrocephalus and hydrorachitis, the amount is scarcely appreciable. In some

instances it has been found to contain cholesterine and uric acid.

The specific gravity of the fluid is generally less than that of the serum of the blood. The quantity varies from a few ounces to many gallons. Sometimes it is poured out with great rapidity, as after the stings of certain insects, and the bites of venomous reptiles; and in certain cases of pleuritis.

Our author teaches not only that an effusion of serum is an accompaniment of all inflammations, but that it never takes place without inflammation. The serous effusions attending obliteration of the veins are generally adduced as examples arising from a purely mechanical cause. For example, if one of the femoral veins be obliterated, or compressed by a tumor, there is an œdematous condition of the corresponding extremity. If the obstruction exists in the ascending hollow vein, it will be followed by effusion in both extremities; if in the descending, by œdema of the upper half of the body. If the portal vein be obstructed or obliterated, the collection takes place in the peritonæum; if the obstacle exist in the heart itself, there is a general tendency to dropsical effusion in the whole body. Now copious accumulations of fluid are observed in many of the cavities where the local and general symptoms during life attest the presence of the inflammatory process, but where, after death, no increased vascularity, no patches or bands of lymph, nothing in fact but a little opacity, can be found. These instances are not unfrequent; and therefore the non-existence of inflammation must not be predicated of the absence of these symptoms.

"Such, then, being the difficulty of recognizing the presence of inflammation, where every symptom during life gives indubitable evidence of its existence, can it be wondered at that. in the instances above referred to, pathologists should still consider the effusion of serum as the result merely of mechanical obstruction? The question may now be asked, can such an obstruction exist, to any considerable extent, without producing a state of parts analagous to, if not really indentical with, inflammation? I would answer, no. Let it be supposed that the obstacle exists in the ascending hollow vein. This

vessel is destined to return the blood from the inferior extremities, the pelvis and abdomen, to the right side of the heart. But, failing in the accomplishment of this object, from the difficulty adverted to, the blood is interrupted in its passage upwards, and congestion of all the vessels, both large and small, is the result. This congestion is not transient, but permanent; and it is scarcely reasonable to presume, judging from our knowledge of the circulation, that this state could exist long without producing an altered condition of the sensibility of the parts affected, attended with more or less redness, and effusion of serosity. The peritonæum and cellular tissue of the limbs are the structures which bear the onus of the obstruction, and these, it is well known, are parts which are most liberally supplied with serous capillaries. But, it may be said that the effusion may result from perverted action, from irritation, or disturbed function: all this may be true, and yet not in the least invalidate our position. Every body knows that in inflammation, there is perverted action, or deranged function, with irritation, or altered sensibility. These terms, therefore, if they mean any thing at all, only denote certain conditions—not the cause of these conditions; as redness, heat, pain, and turgescence are not inflammation, but only so many symptoms of it."—44.

A scirrhous tumor of the liver, situated so as to fret the serous covering, is attended by ascites, even though the portal circulation is free; so hydrothorax is induced by tubercles of the lungs, hydrocele follows upon carcinoma of the testicle, hydrocephalus succeeds heterologous growths of the brain. In these and similar cases the morbid deposit, in the opinion of our author, acts like a foreign substance, causing inflammation in the serous lining which results in an effusion of serum. C.

[TO BE CONTINUED.]

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Use of the Ergot of Rye. By J. Hall Davis, M.D.—The efficacy of ergot of rye, as an excitant of uterine action, and a safe one under certain conditions, is now, I apprehend not doubted for a moment by those members of the profession who have had ample opportunities, from their connection with lying-in institutions, of sufficiently testing the merits of the drug. For my part, I can bear witness to its worth, when administered under proper precautions, and in no single instance have I found ill effects from its use. In improper cases, by virtue of its power it is undoubtedly capable of doing infinite mischief. The pains which it excites are continued, and much more powerful than the natural parturient throes; hence the violent respiratory efforts occasioned by it, would be apt to determine, in a plethoric subject, disturbance of the function of the brain; in a subject of heart disease, more surely an interruption of the functions of that organ. Under circumstances of a more than ordinary resistance to the agents of labor, from rigidity of the soft parts, or confinement of the pelvic space, the ill-judged exhibition of the medicine would be attended by an infinite risk of a rupture of the uterus and vagina. At a meeting of one of the medical societies in London, for the satisfaction of a member, and an unbeliever in the power of the drug, the uterus, just removed from a woman who had died of a rupture of the organ, was exhibited—that deplorable accident appearing to have resulted from the administration of the ergot of rye in an improper case; and there are not wanting other instances on record of the like result. It has been believed by some to destroy the child by a poisoning influence, but I

cannot discover any conclusive evidence in support of this assertion. Where the child has been still-born, it is my conviction that its death has arisen from an arrest of its circulation by inordinate pressure upon the body of the child and the funis; from the exhibition of the medicine in a case of more than ordinary resistance to the agents of labor, consequently under improper circumstances, or from some other cause quite accidental, and unconnected with its action.

The medicine is exhibited under various forms, in powder, with cold water, in infusion, decoction, and tincture.

In my own practice, I have preferred the infusion of the fresh powder in half-drachm doses, given every quarter of an hour. I have known a single dose suffice; but two, three, four, or five may be necessary. I do not exceed five or six doses: that amount failing more will be useless. Very frequently after the quantity necessary has been taken, the contents of the stomach are rejected; but then, generally, the medicine will have been retained sufficiently long to secure the object of its administration. The drug, having been given under a proper condition of the patient for its use, may be inefficient from the idiosyncrasy of the patient, as in the case of various other medicines, or from its being of a bad quality. It should present an ash-colored powder, possess a peculiar smell of its own, and form a dark violet infusion.

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1. The soft parts lax, and free from heat.

2. With rare exceptions the orifice of the uterus should be fully or nearly fully, dilated, and always dilatable.

3. The pelvic space should present the average good or standard dimensions.

4. In head presentations only; in breech and footling cases it is objectionable, on account of the very gradual descent of the presenting parts required for the subsequent passage of the head, without risk to the cord; in transverse presentations it is obviously improper.

5. The head should be in an average good position, and not be impacted.

6. The inertia of the womb should not have for its source a state of plethora, to be recognized by the obvious indications of that condition.

7. The absence of any source of irritation in any other organ capable of disturbing the parturient function by reflex action, should be first ascertained, as of fæcal accumulations, urine in the bladder, crude ingesta, to be met by their obvious indications of treatment.

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9. There should not be present any cause of distention of the womb beyond its power of acting to advantage, as by excessive quantity of liquor amnii, twins.

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In short, this remedy being indicated on account of inertia of the womb, arising from the effect of previous distentions of the organ, or from no ascertainable cause, there should be, for its safe exhibition, a natural presentation, a pelvis of ample dimensions, a free passage in other respects, the soft parts relaxed, and dilatable, nothing wanting, in a word, but efficient action of the uterus to finish the labor.—*London Lancet.*

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and the circumference of the nail. The painful part was visibly swollen, and an appearance resembling ecchymosis was perceived through the nails, which were afterwards cast off. These five individuals were also troubled with uneasy tremors of the upper extremities. They all recovered. It is asked whether these symptoms, especially the pains in the fingers, were produced by the direct absorption of the poison, or by breathing the arseniuretted hydrogen, which it has been ascertained animal bodies exhale when preserved by means of arsenic? Perhaps both causes had their share in the production of the symptoms.—*Ed. Med. and Surg. Jour.* from *Jour. de Pharm.*

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cannot discover any conclusive evidence in support of this assertion. Where the child has been still-born, it is my conviction that its death has arisen from an arrest of its circulation by inordinate pressure upon the body of the child and the funis; from the exhibition of the medicine in a case of more than ordinary resistance to the agents of labor, consequently under improper circumstances, or from some other cause quite accidental, and unconnected with its action.

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peared to be clear and natural, but here, instead of the clear sound, we had nearly complete absence of respiration, with slight crepitus. The disease was therefore fever complicated with extensive inflammation of the postero-inferior part of the lung.

Now inflammation of the parenchyma of the lung, when it attacks children, presents some remarkable points of difference from the same disease in the adult.

I am not at present prepared to enter upon an explanation of the pathological differences which exist between the pneumonia of infants and children below the age of three, and children above that age; certain it is that important differences do exist, and that also inflammation of the lungs in adults is essentially different from both. Again, in persons advanced in years a fourth variety of pneumonia occurs, whose features are very characteristic and peculiar. Observe gentlemen, when I assert that inflammation of the lungs assumes different characters, according to the age of the individual attacked, I am touching on a practical point of the greatest importance, for I have no hesitation in adding that the same mode of treatment is not applicable to any two or three varieties of pulmonary inflammation. Thus mercurial salivation rapidly produced is our sheet-anchor in the pneumonia of adults and persons in the vigor of life, but such a method of treatment cannot be applied either in infants, children, or in old persons. Again, in the pneumonia of children above three years old, nauseating doses of tartar emetic, persevered in with judgment, and combined with bloodletting, leeching, blistering, &c., are chiefly to be relied upon, whereas in infants a perseverance in the exhibition of tartar emetic for more than one or two doses is inadmissible, while minute doses of calomel, ipecacuanha, and chalk, exert a most beneficial influence on the complaint. In infants, too, there must be much more caution exercised with respect to the detraction of blood; but, gentlemen, I find that this subject have not yet been examined with that attention it deserves, and that consequently we cannot lay down general rules for your guidance. Certain I am that much remains still to be done concerning the best means of treating inflammation of the lungs according to the age of the patient. A very good foundation for the pathology of this disease in infants and children has been laid down in an essay by Gerhard, which you will find detailed in a former number of the Dublin Medical Journal.

In the case before us there were some circumstances worthy of remark, as being calculated to make a false impression, and to prevent us from following the only mode of treatment likely to produce relief. There was no febrile action present, and the pulse was only 72, soft and regular. There was scarcely any heat of skin, the bowels were natural, and he had some appetite; the only circumstances indicative of general disturbance of the system were some foulness of tongue and want of sleep. Here the state of the pulse and skin, with the absence of fever, would be likely to mislead the practitioner, and cause him to overlook the real nature of the disease. I need not tell you, gentlemen, that this would be a very important error; the spontaneous efforts of nature would be totally inadequate to its removal, and it would in all probability terminate fatally.

You may perhaps ask, whether the state of pulse, observed in this boy, be a good or bad sign. If we look to nosological arrangements, we shall find that pneumonia is generally accompanied by a strong quick pulse, in fact that this is its natural condition under such circumstances, and therefore we should say that the slow and tranquil state of the pulse in this case, was not a good sign. But my impression is that, *cæteris paribus*, the quieter the pulse in pneumonia, the better. It indicates a disease of less violence, and much more amenable to treatment. The worst cases I have seen, all those cases of young and healthy individuals which terminated fatally in spite of active treatment, were cases characterized by high excitement of the circulation, and where bleeding, leeching, and tartar emetic failed in overcoming the hardness, or abating the velocity of the pulse. Thus in a case which I saw with Mr. M. Colles, and where the patient was a powerful strong man, bleeding after bleeding failed to diminish either the frequency or the hardness of the pulse, neither did the most energetic measures in the slightest degree seem to check or even retard the progress of the inflammation, which, producing a rapid hepatization of one portion of the lung after another, soon proved fatal; so great was the arterial action in this case, that all the superficial veins of the hand had a distinct pulsation communicated to them. On the contrary, when the pulse is soft and slow, the disease, though likely to be latent, and thus give rise to error, is generally under the influence of ordinary treatment. **Wherever the pulse remains quick and hard after the employment of free antiphlogistic treatment, your prognosis shoul always be doubtful if not unfavorable.**

In treating this boy's case I did not order general bleeding, for no matter where the inflammation may be situated, if it has no effect on the general circulation, if it be unaccompanied by increase of pulse and heat of skin, you may dispense with venesection, for it will not do any good. Here your means of treatment should be cupping, leeches, blisters, and the internal use of antiphlogistic remedies. I have ordered this boy to be leeched and blistered; and to take small doses of mercury. I beg leave to observe here, that in exhibiting mercury for pneumonia in children, or boys under the age of puberty, I do not, as in the case of adults, prescribe it in large doses, or with the view of producing a decided action on the system. In the pneumonia of adults, calomel is given in very large doses (I sometimes give it in scruple doses twice a day), with the view of inducing sudden salivation, because we know from experience, that there is nothing which checks so rapidly the progress of inflammatory action. It is true that mercury will occasionally stop the further progress of pleuritis or pneumonia without having affected the mouth, just as we now and then observe the removal of syphilis without actual salivation. But, generally speaking, when you give mercury to cure syphilitic iritis, common pneumonia, or pleuritis, its action is more favorable and more decidedly curative, when it operates fully on the system, as denoted by the affection of the breath, gums, and salivary glands. This, however, is not the case with respect to children or boys under the age of puberty. Mercurialization has not the same beneficial influence on the pneumonia of early life, as at the adult period, and I believe the same remark will be found to hold good with respect to the aged. Certain it is, that in very young children and infants it is scarcely possible to affect the gums, mouth, and salivary glands, in fact to establish a true sore mouth and fetid breath by means of mercury; with respect to the aged I cannot affirm positively, that the same observation applies, but this I know, that large doses of mercury, calomel for instance, do not cure inflammations in old people with anything like the certainty they display in the inflammations of young adults, or of the middle aged. In the present case I have given calomel in small doses, combined with ipecacuanha. It is my intention to carry it so far as to affect the system, and I have combined it with ipecacuanha because its administration in this way has been found exceedingly useful in the bronchitis and pneumonia of children. We attempted here the resolution of the pneumonia by leeching, blistering, an antiphlogistic regimen, and the

use of calomel and ipecacuanha, half a grain of the former and a quarter of a grain of the latter, every fourth hour. This acted twice on the bowels, and it is very probable that this soluble state will continue. Yesterday I ordered eight leeches to the chest, and when the bleeding ceased, eight more were to be applied. To-day, I have ordered twelve more. When you apply leeches to the chest in children, you should not rest content with merely ordering them, you should know how they are applied. There is a vast difference between merely prescribing remedies and seeing them properly employed. It too often happens that this powerful means of checking inflammation is rendered inefficient or even injurious by want of attention on the part of the physician. The leeches are ordered and sent from the apothecary's, but they are applied by an inexperienced mother or a bungling nurse. They are put on one after another anywhere they may chance to take, very seldom over the proper place, and during the whole time they remain on, the child's chest is left quite naked. This needless exposure of the chest is further increased by the habit of applying fomentations after the leeches have dropped off; the child gets fresh cold, and when the physician comes next day, he finds matters worse than before. The best wry of applying them is to put them into a small box made of fresh deal shavings, such as is sometimes used for pillboxes, and place this exactly over the inflamed part. Having thus applied them over a circumscribed space, you may draw the bed clothes gently over the child's chest, and he may remain covered until they are about to drop off, instead of fomentations, order a warm dry sheet or large piece of flannel to be placed over the chest, and in this way you will be able to get a large quantity of blood without exposing the child to the risk of cold. You may perhaps think these observations unimportant and even superfluous, but I am convinced that I have seen lives lost for want of proper care and expertness in the performance of an operation apparently so easy.—*Med. News.*

Placenta Prævia treated by Professor Simpson's Method. By J. Jones, Esq.—Having read Professor Simpson's interesting paper on placental presentations, wherein he recommends extraction of the placenta before the birth of the child, I determined to give the practice a trial the first opportunity that presented itself. I soon happened to have the

following case, which appears to me to prove satisfactorily, as far as can be judged from an isolated case, the superiority of the new over the usual mode of procedure under these appaling circumstances; at least, inasmuch as the safety of the mother, which should be the chief object of our solicitude, is concerned.

I was summoned, on the 14th of March, to a poor woman in labor of her sixth child, who was represented as having profuse hæmorrhage, which had continued almost interruptedly for about four hours. On my arrival, I found my patient in a most precarious state from exhaustion, with a pulse averaging from 130 to 140; she was almost speechless, slightly delirious, and there was no uterine action. There was then no hæmorrhage. I was informed she had had repeated slight attacks of hæmorrhage for six weeks previously. Having rallied her with twenty drops of tincture of opium combined with weak brandy and water, I proceeded to make an internal examination. Before I could exactly ascertain the state of the parts, I was deluged with a frightful gush of blood. The os uteri was fully dilated, the membranes entire, the presentation of the head natural: and the placenta covered nearly two-thirds of the os uteri. The hæmorrhage persisting, and there being now considerable uterine pains, I saw no time was to be lost. I accordingly, and without the least difficulty, insinuated my fingers between the adherent portion of the placenta and the uterus, and in less than a minute, the latter was freed of the placenta. I now administered a full dose of the tincture of ergot, which brought on strong expulsive pains, and the woman was delivered of a still-born child in one hour and thirty-five minutes after my entering the house. After the placenta had been extracted, I do not think she lost altogether, more than a teacupful of blood; she recovered as soon as females generally do after an ordinary labor, excepting that she continued unusually weak for a considerable time, as was to be expected after the great loss of blood. She had had one similar labor before; the the child was then turned with great difficulty (her pelvis not being capacious), peritonitis ensued, and she very narrowly escaped with her life, after a confinement to her bed of more than two months.

This case needs no comment; the facts speak for themselves. To me it is convincing proof the expediency of this mode of treatment in preference to the old one.—*London Lancet.*

Turning, in Arm and Shoulder Presentations. By S. B. Phillips, M.D.—Most works on obstetrics, and almost every professor, who lectures on this subject, give directions to seize both feet at the same time, in turning in utero, and bring them down together; or, if unable to grasp more than one, to secure that, after bringing it down, by the fillet; and then to introduce the hand again into the uterus, search for the other, and bring it through the external parts also, before attempting to proceed with the delivery.

This mode of procedure is so universally recommended and adopted, that almost every Obstetrician feels compelled to follow these general directions, lest he should become reprehensibly responsible, by departing from an established practice; but from my experience in turning, in arm and shoulder presentations, I am fully persuaded that it is far from being the *best* practice in all cases; but on the contrary, that it is pernicious and unnecessary in *most* instances, to re-enter the uterus after having obtained one extremity, for the purpose of grasping the other.

The operation is sufficiently severe and dangerous, when performed with as little irritation as possible, without introducing the hand the second time; and the ease with which the delivery can be accomplished, by one extremity only, in all ordinary cases, conclusively proves that there is no necessity to re-enter the womb, and search for the other, thereby increasing the danger of rupturing the uterus, and producing inflammation of that organ.

Delivery by one extremity, has its advantages, which are not afforded by grasping both extremities at the same time; one of which, is the greater dilatation of the os uteri and external parts, in consequence of one extremity being folded upon the abdomen, consequently affording greater facility for the passage of the head, the only difficulty usually attending footling cases, and by far the most frequent cause of the death of the child, the funis umbilicalis being too long compressed.

I was *first* led to depart from the practice recommended by the high authorities in Midwifery, by the occurrence of the following case, which I will relate, as illustrative of the practice here recommended.

I was called about six o'clock, P.M., to Mrs. ——, in labor with her second child; she had arrived at full time. She informed me, that about one o'clock that morning, she was awakened by a "discharge of the waters," not being con-

scious of any pain; that for two or three hours prior to my arrival, she had experienced slight pains at distant intervals. Her pulse was 104, with high febrile excitement. On examination, I found the elbow at the os uteri, which was rigid and unyielding, dilated sufficiently to admit two fingers only, with difficulty.

I ascertained the position of the fœtus, through the abdominal parietes, with a good degree of certainty before entering the womb, though not always practicable; the head was felt in the left iliac region, the breech rather more elevated on the right side; and the feet, one or both, were more distinctly felt on the right of the median line, in the mesogastric region; by the last *distinctive* mark, I was enabled to distinguish the breech from the head, and that the *left* arm was presenting.

I exhibited one-eighth of a grain of antimonii et potassæ tartras, in solution, every fifteen minutes, which produced full emesis after the fifth dose, when I found the os uteri beginning to yield. In a few hours, it was sufficiently dilated to admit the hand freely, and without any improper force; whereupon, I entered the left hand, and seized the right foot, unable to obtain the other, at least, without much irritation. I brought it through the os externum, secured it by the fillet, and attempted to search for the other; but every trial to reintroduce the hand, (the liquor amnii having been discharged nearly twenty-four hours,) caused such pressing-down efforts on the part of the patient, without the occurrence of uterine contractions, that I twice relinquished the attempt, and concluded to deliver, if possible, by one extremity only. This I found more easy than I had anticipated. By making slight traction on the right extremity, the breech passed without the least difficulty, and the left extremity was at once liberated. The only delay in the case, was caused by the cervix uteri grasping the neck of the child, after the delivery of the arms;—therefore, I am constrained to believe, that had I delivered by both extremities, instead of one, I should have been compelled to use the forceps to deliver the head; the use of which, *ought always to be avoided if possible*, as well as the use of all other instruments, when delivery can be as well effected without them. She recovered without one untoward symptom, and as rapidly as in ordinary cases; but had I re-entered my hand, and repeated the cause which often produces rupture or inflammation, it is probable, that the effect would have been deleterious.

No rule can be laid down strictly applicable to all cases. It is not contended that delivery by one extremity is always preferable, but that it is generally the most judicious proceeding. On the contrary, in the case of a child escaping through a rent of the uterus into the abdominal cavity, I should consider the delivery by both extremities, the b tter mode, to avoid increasing the rupture already existing. In delivery by one extremity, it is important to seize that extremity which is opposite the presenting arm, or shoulder, else there may be some difficulty, in producing complete evolutions of the fœtus; and this may be more readily and completely produced by one extremity, than both, when that extremity is brought down, which is opposite to the presenting part; for by grasping an opposite extremity, a partial rotation of the body takes place, causing the presenting part to recede from the os uteri, as that extremity descends in the act of turning, thereby causing a more complete evolution of the fœtus, than if the presenting arm or shoulder remained at the os uteri.

Since the record of this case, I have seen a paper on turning, which recommends that evolution should be performed in cases of arm and shoulder presentations, by one extremity, and gives the preference to seizing the knee instead of the foot or ankle. This practice commends itself, inasmuch, as there would manifestly be less danger of rupturing the uterus, or of causing inflammation, which are frequently the consequences of the operation.

Whatever tends to render this operation less severe to the patient, and less dangerous in its consequences, is worthy of the candid, serious, and impartial consideration of the accoucheur, as it is an operation, imperiously demanded in many cases, for which no other means can be substituted, whereby it is possible to save the lives of both the mother and child.—*N. Y. Med. and Surg. Reporter.*

Turpeth Mineral.—Croup. Dr. Hubbard, of Maine, recommends this substance as a prompt, safe, and valuable emetic in certain diseases. We find his remarks in the Summary of the Transactions of the College of Physicians of Philadelphia:

My attention was first directed to the use of this substance from feeling the want of some article, reliable, as an emetic

of certain, prompt, efficient, and safe action, with the least tendency to run off by the bowels. For, whatever may be thought of the value of emetico-cathartics, in many other cases, it must be admitted by all, that simple emesis is, in many pathological conditions, alone desirable; and that its complication with catharsis will, in such conditions, not only defeat the beneficial effects of the emesis, but will prove positively injurious, and often extremely hazardous. It is under precisely such conditions of the system, that the emetics, in common use, such as tart. antimon., ipecac., sulph. zinc, &c., will most frequently fail of producing efficient emesis, and are most liable to run off by the bowels. There are certain diseases—for instance, croup, scarlatina maligna—during all the stages of which, there is great insensibility of the stomach to the impression of emetics, and, when produced by inordinate doses, emesis is likely to be very imperfect, and to be followed by catharsis. The same insensibility also exists in all diseases, under circumstances of great prostration of the system, whether that prostration be owing to the violence of the disease or to its duration.

Every practitioner of experience must have felt the importance of availing himself, under some of the above named pathological conditions, of the revellent and equalizing effect of simple emesis; and he must also have experienced the difficulty and uncertainty of obtaining it by any of the emetic substances in common use. Take, for instance, a case of spasmodic and intermittent croup. The patient is suddenly seized, for the most part in the night, with croupy cough and spasmodic breathing, which symptoms continue, attended with great anxiety and distress, for several hours, and then pass off to return on the succeeding night with redoubled violence. In many instances, the intermissions of all morbid phenomena have been so imperfect, as to lull the friends of the little sufferer into a fatal security, until, by the accumulated power of repeated paroxysms, the patient is overwhelmed with disease, almost beyond the hope of recovery; when for the first time, medical aid is called for. A single case will better illustrate the difficulties the physician has to encounter, than any general description.

I was called, in the night of Feb. 5, 1845, to see Miss C., aged about 12 years. In the three preceding nights, at about the same hour, she had been seized with paroxysms, similar to the one in which I found her—each one continuing several hours, each of progressively increased severity, and each leaving her able to be about, during the day, with

respiration so easy as to excite no alarm, and only a slight croupy cough. I found her with breathing extremely quick laborious, and stridulous, the chest heaving with convulsive throes, the countenance livid, the eyes wild and distracted, extreme jactitation, the pulse thread-like, vaccilating, and too rapid to be counted, the extremities, up to the body, of an icy coldness, in short, the patient appeared like one in the last agonies. Strong rubefacients were immediately applied to the whole surface, sinapisms to the spine and extremities, and heated blankets to the lower limbs. As soon as she could swallow—for the deglutition was extremely difficult—five grains of the turpeth mineral were given at once, and followed with the free use of mustard whey; this not vomiting her, after fifteen minutes I gave her five grains more, immediately upon swallowing which, vomiting commenced, and continued smartly for more than an hour. During this operation, and for some hours after, a free use was made of a decoction of seneka, as a stimulant diaphoretic. Her respiration began to improve immediately on vomiting, and, at the end of about four hours, it was comparatively good; the skin open, natural warmth restored, and the circulation equalized. The patient was then put upon the use of the following powder:

℞. Pulv. ipecac. comp., ℈j.
Hydrarg. chlorid. mit., ℈j.
Camphor. pulv., grs. xij.
M. ft. Chart. No. vj.

One to be taken every four hours; a free use to be made of the decoction of seneka in the intervals, and the bowels to be moved after 24 hours.

The emetic did not produce purgation. No paroxysm of difficult breathing returned. In forty-eight hours, my attendance ceased. I know of no other emetic substance that would have effectually met such a case. Ipecac., sulphate of zinc, &c., would have proved too feeble at best. Tartarized antimony, would, I conceive, have been too hazardous, from its nauseating and sedative effect, setting aside the uncertainty of its producing emesis in any reasonable dose, and the almost certainty of its producing exhausting catharsis. I repeat, then, that in this form and condition of croup, my experience furnishes me with no substitute for the turpeth mineral, as an emetic.

In the more inflammatory and less paroxysmal forms of this disease, with decided arterial excitement, and hot skin,

from the commencement, tartarized antimony as a nauseant and emetic, may be, and undoubtedly is, with certain limitations, preferable. Still, I must say, that in all stages and conditions of this disease, where the equalizing and revellent effect of emesis is alone desired, I have never regretted having used the turpeth mineral, in preference to all other emetics. These remarks might easily be extended to the use of this remedy in some other forms of disease, and especially in some of the anginose affections. The hints above given will, however, enable the experienced physician to determine its applicability to such conditions, and I am warned to bring to a close these remarks, which you may find already too prolix.

It remains, then, only to say a few words upon the peculiarity of this substance as an emetic, and upon some of the objections urged against it. In the first place, the promptness and certainty of its operation belong to no other substance within my knowledge. It has seldom, if ever, failed to vomit efficiently, when administered in a proper dose, in any of the various conditions of the stomach, and of the system, in which I have given it. It usually acts in ten or fifteen minutes, and the dose should be repeated at those intervals, if the first fail, which rarely happens. In efficiency and revellent power, it is not, perhaps, quite equal to the tartarized antimony; it is, however, vastly superior, in these respects, to ipecac. or any other substance known to me. In safety, it is generally superior to antimony. Its emetic operation usually continues from an hour to an hour and a half, accompanied and followed by none of the distressing nausea, prostration, and depletion of antimony; but, on the contrary, leaving the patient with the invigorated feeling arising from equalized warmth and circulation. In its emetic operation, it has saldom, never in my recollection, been accompanied or followed by catharsis. I have never known it to be violent, nor otherwise than entirely safe in its operation, although I have given it in much larger doses than are usually directed; nor have I ever seen salivation follow its use as an emetic. So safe do I consider it, that in urgent cases I have not hesitated to put my patient under its full emetic operation, two or three times within 24 hours; nor have I seen ill consequences result from such practice. I am inclined to think that the dose should be somewhat larger than is usually recommended. From two to three grains may be given to a child two years old, and repeated in ten or fifteen minutes, until emesis is produced. If the first dose

tails, the second usually acts as soon as it touches the stomach.

Dr. Morris had no doubt that every physician, of much practice, must have experienced the need of a safe and efficient emetic, under the circumstances stated in the communication of Dr. Hubbard, as a substitute for the more active and depressing articles, in general use.

In a case of croup, some years ago, in which Dr. Meigs was in consultation, where tartar emetic had been carried as far as was deemed prudent, Dr. Meigs proposed the use of powdered alum, which answered an admirable purpose. Dr. Morris has since, repeatedly, used this article under similar circumstances, and has found it very rapid and efficient. It is an old remedy, but the suggestion for its use, under the circumstances referred to, came to him through Dr. Meigs, and he would confidently recommend it to the fellows.

Dr. Bell mistrusted the power of emetics, on the ground of their emetic effects alone, in the cases referred to in the communication of Dr. Hubbard. He considers croup to be an inflammatory disease, and preferred to place his reliance on depletion, and the antiphlogistic powers of tartar emetic. He considers the enfeebling effects of these remedies less to be dreaded, than the inflammation and morbid accumulations, which are too apt to follow a less energetic practice. The fact of the paroxysmal character of croup, is apt to deceive physicians into the idea, that no inflammation exists, whereas. Dr. B. believes that inflammations are very apt to assume a paroxysmal form, especially in croup. Dissections of those dying of this disease, manifest the pre-existance of inflammation of the larynx and trachea; and the same inference may be drawn from the repetition of the symptoms, after an apparent subsidence. One attack may occur to-night, and be relieved by morning, by mild means, whereas, on the following night, a still more violent paroxysm may unexpectedly occur, which shall destroy the patient, showing the probable continued existence of the disease, in a latent state. Dr. B. thought that the effects of Coxe's Hive Syrup, when used as a domestic remedy, should not be confounded with those of tartar emetic, cautiously prescribed, and its effects carefully watched by the physician. It must be remembered that the former is a compound article, containg, amongst other things, squills, which is itself a very depressing article—besides, the injudicious use of this compound by parents and

nurses, is no argument against its employment, under proper restrictions. To return to the effects of tartarized antimony, in the disease under consideration. Dr. B. was unable to find any substitute for it—any article having less power, would, in his opinion, be inadequate to the effect desired. Dr. B. did not know that he had ever treated a case of croup (and he has seen many) without it, and he had never witnessed any alarming effects from it, except in one instance.

That was in a little girl, five or six years of age, who had an attack of croup in the night, which was relieved by morning, under the use of tart. emetic., administered under Dr. B.'s immediate notice. A repetition of the medicine was directed, in the event of a return of the croupal cough, and the mother, misunderstanding the directions, gave it repeatedly, and at the short intervals, as had been done during the height of the paroxysm. The prostration which ensued was so alarming as to induce the attendants to send for the Doctor; but in a short time, and though the patient was in a critical condition, she was effectually aroused by cordials and stimulants.

Dr. Bell agreed with Dr. Morris, as to the exceeding rarity of spasmodic croup, and when this form does occur, he knows of no remedy more likely to relieve it, than the tartar emetic.

Dr. Bell believes that the confidence reposed by American physicians in the use of the lancet, tartar emetic, and calomel in croup, was the ground of their superior success in the treatment of this disease; whereas, our trans-atlantic brethren, who are fearful of the use of these heroic remedies, do not enjoy, and probably from this very reason, the same success.

Dr. Bell, therefore, prefers to meet the disease by a frank, decided treatment in the outset, and, instead of simply relying on vomiting and anti-spasmodics, he prefers tartar emetic and the lancet, with a view to their depressing effect.

Phenomena of Respiration.—M. Vierordt has been making a number of experiments on respiration, and especially on the quantity of carbonic acid exhaled according to the frequency of the respiratory movements. He found that the volume of respired air contained less carbonic acid in proportion as the respirations were more frequent. But the quanti-

ty of carbonic acid expired per minute was the same whether the respirations were quick or slow. This law was verified whatever was the quantity of carbonic acid formed per minute,—a quantity, however, which in M. Vierordt at different times varied from 174 to 470 cubic centimeters per minute.—*Edin. Med. Jour.—Comp. Ren.—Med. Examiner.*

Report on the Progress of Surgery. By HENRY ANCELL, Esq., M.R.C.S.E.—No observer can doubt that Surgery is making rapid progress. While on the one hand new operations are successively discovered for the cure of pathological lesions hitherto deemed irremediable, as the operation for the cure of strabismus, and the subcutaneous section in tenotomy: on the other hand, operations by the knife are superseded by a more rational and scientific, a less objectionable and equally successful treatment of the disease: as in the probable substitution of pressure for incision in the cure of some cases of aneurism.

Again, surgical operations which proved unsuccessful and were abandoned in despair in a more infantile period of the art, are now likely to be resorted to successfully in treatment of incurable maladies, as exemplified in the abdominal section for the extirpation of diseased ovaries. In a more strictly scientific point of view also, surgery is steadily advancing with the progress of physiology and pathology. An improved acquaintance with the phenomena of inflammation especially derived from microscopical anatomy and microchemistry, is leading on to more rational views of treatment. Statistical records are daily furnishing more accurate data of the results of practice, and the innumerable facilities now afforded in all the more civilized communities for extended and multiplied observation, are increasing in an incalculable ratio our stock of knowledge. So much is this the case, that no individual in active practice can hope to embrace all that is in progress, and all that has been done, even within a limited period, in his own reading and investigation, a circumstance which we feel assured will render the periodical Reports of the Progress of Surgery, which are to form an essential part of this retrospect, acceptable and useful to the surgical practitioner, embracing, as they are intended to do, results—and more especially practical results—in reference to etiology, diagnosis, pathology, and treatment.

1. One of the most recent works that has issued from the press on any general division of the subject of surgery, and by a surgeon, is an interesting volume by Mr. Macilwain, on the Nature and Treatment of Tumors. Mr. Macilwain maintains it to be a pure assumption that cancer, fungus hematodes, and other malignant tumors, are incurable by the powers of nature—and an assumption, moreover, we may add, the tendancy of which is the more pernicious as it perverts and discourages the labors of those who are industriously inclined. He takes a threefold view of the cause of tumors:—In the first place they are referable to the food containing something unusual; secondly, to the assimilating organs acting on the ingesta in some unusual manner; and lastly, or to both these circumstances combined. His curative intentions are therefore directed to diet, and to a regulation of the various organs which represent the different stages of assimilation. No organ in the body, according to the views of this author, is more frequently in fault than the liver, and this often without any indicative symptoms. A knowledge of this fact is to be arrived at by a careful history of the patient, in order to ascertain what injurious influence the liver has been exposed to at any time, and whether ordinary influences have been so exalted as to become injurious. The influences referred to are especially—sedentary habits, and the free use of alcohol, and of greasy, fatty, and saccharine matter: substances which contain a superabundance of carbon. To regulate disordered liver he tries to diminish the quantity of carbon, except such as is contained in necessary food. A man may eat meat—Mr. Macilwain observes—without fat; butter is unnecessary; so is sugar; and in this way, without depriving the system of anything really necessary to health, the liver may be materially relieved, and this indeed is the great mode of assisting its function. The result of Mr. Macilwain's experience in the treatment of tumors is the smallest possible degree of confidence in local applications, particularly in those which are supposed to excite curative actions in the part, and might be called *positive* remedies. To the judicious management of those which act by excluding injurious agencies, or *negative* remedies, he attaches more importance.

Cancer, so long as the viscera are sound, is a curable disease; and the absorption of malignant tumors generally is under the influence of remedial treatment. Our author gives the case of a lady, aged 39, who consulted him for a tumor of the breast which had been pronounced hopeless. It was

a true specimen of carcinoma—very hard, adherent to the subjacent parts, the skin tucked in at the nipple with a dark spot there, slightly abraded, painful, with a sense of drawing; the arm swollen and red in the vicinity of the tumor, and a few drops of blood issuing from the dark spot daily. Her general health was greatly deranged—probably not one function in her whole body performed healthily. The plan of treatment consisted in the use of a very plain diet, the rigid exclusion of sugar and grease of all kinds, friction to the skin, with special avoidance of any interference in the neighborhood of the tumor. After the cessation of her scanty catamenia, a few leeches were applied to the pubis, and the medicines generally used were aloes and ipecacuanha, with now and then a dose of calomel. The case improved; the tumor became moveable, the suffering from it very trivial, and except when she transgressed in her regimen, although now and then a little uncomfortable, she was most generally easy.

The patient relaxing in her obedience, an eminent physician was consulted, who allowed her to 'eat what she pleased.' The result was, that in a few days she was thrown into a state of the most terrible suffering, for which opium was prescribed without relief; but a return to the former plan was attended with almost immediate amelioration, although she never recovered her former ease. So long as she adhered strictly to the plan, she had almost absolute immunity from pain; but she frequently tampered with impunity. She ultimately died, as the author believes from her own imprudence, in great agony. Mr. Macilwaine gives other cases to illustrate the beneficial effects of regular and daily exercise, a plain diet, and the exclusion of saccharine, oleaginous, and alcoholic matters in malignant tumors. The plan of diet should be 'simple, and strictly defined;' and one of his correspondents, Mr. Kingdon, remarks:—I am now convinced that many diseases, which have hitherto been considered incurable, may be cured by that close attention to the minutiæ of function which *does not permit the most insignificant portion of the frame to be overlooked.*

As respects depositions generally which are not cancerous, Mr. Macilwain now seldom sees any in which he cannot succeed by strict treatment; sometimes in procuring their absorption, almost always in arresting their progress; and he believes that he has succeeded in promoting the absorption of ten or twelve malignant tumors at least.

The author's observations on the progressive results of the successful treatment of tumors are thus described:

"The first change observed is that if there have been much pain, there is a very material and marked diminution, or a total subsidence of it, without the influence of *opium or any other narcotic;* and this, too, when opium and other narcotics have been exhibited in vain. The tumor becomes loosened as to its subjacent connections; and I have more than once seen a tucked-in nipple resume the natural appearance. A change yet more important is, that the tumor which has before, perhaps, presented itself in one mass, with more or less irregularity, becomes broken into portions, so as to feel like separate depositions, intersected as it were by lines of more healthy structure. This is speedily followed by a diminution of the characteristic hardness; so that after a while the carcinomatous character becomes entirely lost. The change progressing, the tumor becomes gradually absorbed, until nothing remains but what, if now examined for the first time, might be taken for an enlarged gland; and this gradually disappearing, the part resumes its ordinary character. Now all this has never happened without a change in some one or more important function to which the treatment has been specially directed, though this has varied in different cases according to the function which, on careful analysis, appeared to be most seriously or primarily affected. If I were called on to name any dietetic measure most general, I should say the diminution of carbon, in the interdiction of grease, sugar, and alcohol. If I were asked what one organ has most frequently appeared to take the lead, I should say the liver."

We have thus given as fair a statement of Mr. Macilwain's views as our space will admit of, because we verily believe that much suffering accrues, if not loss of life, from men holding the most eminent position as surgeons and physicians distrusting the unquestionable powers of nature, and relinquishing the systematic and scientific treatment of what they deem hopeless diseases. Heterologous formations frequently disappear, to the surprise of the surgeon, without any obvious cause, but not without a cause. These cases establish the justice of our claims for the powers of nature. We believe our readers will regard Mr. Macilwain's views respecting the principles and the details of his treatment not merely as interesting, but as important.

2. A work has also been recently published on the Treatment of Cancerous Tumors of the Breast without Operation, in Paris, by S. Tanchou, in which 302 cases of cancer are collected together, as having got well after the employment of various remedies. We find this author boldly maintaining that cancer is not absolutely incurable. He gives, it is true, but three cases of amelioration, and fails to prove his position; yet the cases cited have been admitted by some of his reviewers as demonstrative that it is possible not only to ameliorate cancerous affections, but also to arrest their progress and render them stationary.

3. A work published at Paris by Dr. Jules Guyot in 1842, and reviewed in the British and Foreign Medical Review of January last, will doubtless call the more particular attention of surgeons to the important subject of temperature in operations and the treatment of surgical diseases. M. Guyot infers, from the numerous experiments, that air, when devoid of any noxious impregnation, has, simply considered, no injurious action on living parts. It may, nevertheless, become injurious in two ways:

1. Mechanically, as by causing the lung to collapse in penetrating wounds of the chest,—by destroying the cellular attachments of the viscera in wounds of the abdomen,—and by distending or compressing organs as in emphysema.

2. As the medium of an injurious temperature, air introduced into the serous and synovial cavities occasions inflammation by its coldness: at the temperature of 36° cent. (96⅘) Fah., the articular, cranial, thoracic, and abdominal cavities, may be opened without danger of inflammation, in so far as the contact of the atmosphere is concerned.

By the term 'Incubation' as a curative process, M. Guyot implies a temperature of 36° cent. applied to the body by means of heated air. He distinguishes three species:

1. Local or circumscribed incubation adapted to amputations, wounds, &c.

2. Diffuse incubation, acting upon a considerable portion of the body, to re-establish a function, restore the equilibrium of the circulation, &c.

3. General incubation applicable to premature birth, defective development of infants, and various diseases. It may also be continued or intermittent in its application. Various kinds of apparatus are employed for the purpose.

This peculiar treatment has been tried and found successful in ulcers, some of which were of an inveterate kind; and

in one case of twenty-five years' standing, in a man aged 67, in a large, callous, and fistulous sore, in an immense lacerated wound of the arm. In a case of phlemonoid erysipelas, terminating in gagrene, two days after the commencement of the treatment, the suppuration was diminished to one-half, the wound was covered with granulations, and the fever had ceased. In œdema of the limbs, in phlegmonoid erysipelas, eczema, and a numerous variety of cases, it appears most essentially to influence the cure.

M. Guyot has put his method into practice in *white swelling*, and records cases which seem to indicate that is worthy of a more extensive trial. A case of chronic rheumatism was cured in twelve days, and a case of periostitis of the tibia in eight days. A malignant or ill-conditioned ulcer of the nose, which had resisted ordinary treatment, was much benefited by incubation; and in another case a cancerous ulcer of the worst character, also seated on the nose, this treatment modified the sore in a remarkable manner; the mammillated and tuberculated surface contracted its limits, caused the redness and pain to disappear, and predisposed the tissues to cicatrization. The arsenical paste was then applied, and the cure became complete. Thirty-two cases are detailed in which incubation was applied to the stump after various amputations and the results, as compared with the results of amputation under ordinary treatment in the Parisian Hospitals, were very greatly in favor of the remedy, although there is some reason to doubt whether they were fairly attributable to the artificial temperature.

While on the subject of temperature in the treatment of surgical diseases, we may state that in Mr. Grantham's work, quoted in our extracts, great stress is laid upon the principle of keeping up the normal temperature, or 'the vitality' of the superficial structures in inflammation of the ligamentous, tendinous, and cartilaginous parts of the body; and the book contains illustrations of the efficacy of the treatment founded on this principle. Thus, in the after treatment, on reduction of a bad dislocation of the ulna and radius, Mr. Grantham steams and foments the limb for an hour, and then applies a large hot bread and water poultice for several days. He observes of this case, which was cured in a few days, 'that no blood was lost, nor any cold applications used.' The treatment was simply keeping up the action of the exhalents and absorbents, so as to remove tumefaction and extravasation without lessening the vital properties pertaining to the

low organized textures, as it is the ligamentous and tendinous structures which are injured in all dislocations.

In the operations for removal of ovarian tnmors, the surgeon finds it of the first importance to regulate the temperature of the atmosphere. In fact, no one who has witnessed the extent and length of time of the exposure of the abdominal viscera in many of these operations can doubt that their safety has been, to a very considerable extent, secured by attention to this circumstance, and that inattention to it would very decidedly increase their mortality. We have placed this subject thus imperfectly before our readers, convinced that surgeons in this variable and inclement climate are, in the main of their practice, much too negligent on this important point, and in the hope that the future numbers of the 'Retrospect' will have to record more favorable results in several departments of surgical practice, when it receives a greater share of attention.

4. Dr. Egan has lately published an elaborate article 'On the Diagnosis and Treatment of Syphilitic Diseases,' the substance of which he recapitulates as follows:

1st. I have observed the simple superficial ulcer, unattended with indurated margin or base, give rise to a papular eruption, pains resembling rheumatism, increased vascularity of the throat, generally accompanied with enlarged tonsils. In this form I have never witnessed the occurence of rupia, nodes, or ulceration of the back of the pharynx: in this class, which were for the most part treated without mercury, constitutional symptoms occurred far more frequently, but were of a milder description than in those where the opposite plan of treatment was adopted. When topical applications fail mercury is resorted to for the purpose of accomplishing a cure.

2dly. That strong presumptive evidence has been afforded, that the matter of gonorrhœa, in its incipient stage, is capable of producing a mild form of secondary symptoms; but not having been able to substantiate this opinion by the process of inoculation, I cannot, as far as my experience goes, lay it down as an ascertained fact.

3dly. That the excavated ulcer, with indurated margins and base, commonly described as the Hunterian chancre, has, in my limited number of cases, been succeeded by a scaly eruption and excavated ulcers of the tonsils; and that in those cases alone mercury deserves the name of a specific.

4thly. That the phagedenic ulcer, where it has existed *ab initio*, does not owe its characters to any peculiarity of constitution, but to a specific virus, as is evinced by the dissimilarity and inveteracy of the secondary and tertiary symptoms; and that in such cases mercury is decidedly injurious. And, lastly, that all the secondary forms of syphilis, with the exception of iritis, are curable without the aid of mercury; the cure, however, is much more protracted, but relapses far less frequent.

5. There is nothing before us of very great importance in Thoracic Surgery. Forty cases of injuries of the chest were the whole number received into Guy's Hospital from January 1, 1843, to December 31, 1844. The series excludes injuries in this region of minor importance treatad out of the hospital. Of the 40 cases four terminated fatally, that is to say, 10 per cent. The cases include, simple injuries of the chest; fractures of the ribs, sternum, and clavicle; comminuted fractures; penetrating wounds of the chest; injuries of the lungs; with different complications, as pneumonia, pleuritis, pleuro-pneumonia, emphysema, hemoptysis, collapses, and general obscure inflammatory and other symptoms. The usually admitted principles of treatment were resorted to, as—rest, bandaging, bleeding — general and local, and purgatives; and to meet special complications and symptoms —calomel and opium, incisions, punctures, brandy, and other stimulants, blisters, antimony, diaphoretics, &c. Except that a series of such cases must present novelties in their details, and if faithfully recorded, must be interesting and instructiive to the surgical practitioner, this report does not contain anything new in principle, either as respects diagnosis or treatment.

6. The following is an interesting case of injury of the chest, with hernia of the right lung. A child, 13 years old, fell from a considerable height, whilst he was playing, and struck himself against the end of a branch of a tree which had been recently cut. A wound about three inches in length on the anterior part of the right side of the chest was the consequence, extending transversely between the fifth and sixth and rib. Dr. Anglo, who was called in immediately, found a considerable quantity of blood from the interior of the chest, and at the same time an elastic tumor about the size of the fist, and of a rosaceous color, having a transverse wound, and evidently being part of the inferior lobe of the

lung. There was much oppression and anxiety, an extreme pallor, the pulse 'miserable,' the extremities cold, and every thing indicated imminent danger. The protruded portion of the lung was reduced, although with difficulty, and the edges of the wound were brought together with bandages. The patient was three days recovering from the violence of the concussion. Reaction then came on which was met by bleedings and antiphlogistics. The wound soon cicatrized, the pulse recovered its functions, and in six weeks the cure was complete. The French Journals contain several cases in which paracentesis thoracis has been performed with successful results.

7. In Abdominal Surgery, Ovariotomy occupies the first place. The revival of the abdominal section for the purpose of removing diseased ovaries, is an important circumstance in the history of modern surgery, and the progress of opinion respecting this important operation, both as to its propriety as a mode of cure, and the various modifications which may be suggested in the manner of performing it, deserves the immediate and most serious attention of every practical surgeon, for, although the general treatment of the disease itself most frequently devolves upon the accoucheur, the formidable nature of the operation will in all cases render it desirable that it should be undertaken by the practical surgeon. We propose to fix the attention of our readers upon the state of our knowledge at the epoch from which this 'Retrospect' dates, by referring to Mr. Phillip's paper on the subject.

This gentleman has collected the results of eighty-one operations:—

The tumor was extracted in - -	61 cases
Adhesions, &c., prevented its extraction in	15
No tumor was found in - - -	5=81

Of the whole number:—

The recoveries after abdominal section were	46
The deaths - - - - -	32=81

But all the cases in which no tumor was discovered, and the operation was not completed, recovered.

Of the cases in which the tumor was extracted there were:—

Recoveries - - - - - - -	35
Deaths - - - - - - -	26=61

Of those in which adhesions and other circumstances preven

vented the removal of the tumor, nine recovered, and six died.

The large incision was resorted to in 55 cases with the following results:

Cured - - - - - - - -	23
Recovered - - - - - - -	6
Died - - - - - - - -	26=55

The small incision in 27, of which there were—

Cured - - - - - - - -	13
Recovered - - - - - - -	7
Died - - - - - - - -	7=27

Several years ago, that distinguished physiologist and practitioner, Dr. Blundell, drew up a paper which was read to the Medico-Chirurgical Society, the object of which was to demonstrate what the author then believed to be a fact, that the fears entertained by surgeons were greatly exaggerated respecting the dangers that attend wounds of the peritoneum. We have not seen the paper, but have had opportunities of conversing with its author upon the subject, and we understand that it embraced cases of the most extensive laceration of the parietes of the abdomen, with extrusion of the viscera, which had ultimately recovered. The Society declined publishing the paper, but the author has never had reason to alter his own deductions from a consideration of those cases. The recent results of the abdominal section tend very greatly to confirm his views. It is quite true that in many cases of ovarian disease, previous to the period at which an operation is likely to be performed, the whole peritoneum has assumed a pathological condition; but it is equally true that inflammation, and all its consequences, is liable to occur at any period during the progress of ovarian disease, and also, that it is inflammation which is chiefly dreaded by the surgeon, in making extensive incisions through the peritoneum, and in handling and exposing the abdominal viscera. It is not for us to encourage or discourage any particular *methodus medendi*, we are rather the chroniclers of events; and we shall in future collect all the cases which meet the public eye, wherein this operation is resorted to, with a view to place the results before our readers. It may, however, as we conceive, be justly remarked, that according to the evidence before us, the danger of inflammation in these cases, is not so great as we have been taught to believe, and the observation of Dr. Blundell upon this head is perfectly correct.

An additional case is recorded by Dr. Bowles, of Harrison

county, Ohio, wherein the incision was nine inches along the linea alba: the omentum was found to be adherent to the tumor, and the latter firmly bound down by adhesions to the bladder and uterus; but all the adhesions were easily separated by the handle of the scalpel. The patient vomited during the operation, producing protrusion of the intestines. To prevent distension of the bowels by flatus, a tube was kept in the rectum. The tumor was solid, and weighed five pounds. No doubt remained of ultimate recovery.

Cases by Mr. Clay, Mr. Lane (unpublished), and others, the above record in the Medico-Chirurgical Transactions, have come to our knowledge; they are for the most part successful, and will be placed before our readers in our next number.

8. The proposed revival of the treatment of fistula in ano by ligature, according to an improved method, has met with objections. It is asserted to be inapplicable and insufficient in many cases, and also more painful and hazardous than the operation with the knife. Mr. Salmon, after nearly twenty years' experience, denies that the operation by incision is attended by any peculiar hazard from hemorrhage or otherwise. In 243 cases, selected promiscuously, he states that no fatal hemorrhage occurred; in 20 instances only, was there any bleeding which required attention, and in these latter cases the simplest precaution sufficed to prevent any serious inconvenience. The operation by ligature has, again, been admitted to be applicable in cases of small and single sinuses, but its propriety doubted where large abscesses, with loss of substance, and complicated sinuses tending in different directions, occur. In these latter cases, Mr. Luke admits that ligature offers no better success than the knife, but, he states, 'certainly not less.' The probability of success must depend much upon the extent and direction of the communicating sinuses, and upon their complications with ligamentous and osseous structures. In more remediable cases, Mr. Luke remarks, that although, when mismanaged, the ligature may produce protracted pain, yet, when well managed, it neither produces as much pain as the knife, nor as much hazard; particularly where the rectal aperture is barely within reach of the finger. The insertion of the ligature according to the plan recommended, causes scarcely more pain than a common examination; it is at no time necessary to draw it so tight as to cause pain; "during the first few days, or until the slight inflammation of the fistula which succeeds its intro-

duction has attained its maximum amount," it should be left loose; it is then made nearly tense, but not to give pain, and the tension is to be kept at this point by renewed turns of the screw every two or three days. The whole proceeding is to be slowly conducted, and in this consists the essence of the improvement as compared with the mode of applying the ligature in former days. When pain occurs, it usually arises on the accession of inflammation, causing the included parts to swell; the ligature is then to be loosened, which is readily effected by the kind of apparatus employed. We may add, that the operation by the knife is one greatly dreaded in most cases by patients, and frequently deferred in consequence of that dread; and there can be no doubt, that if the surgeon can conscientiously resort, as a general principle, to the treatment by ligature, the subject of this formidable disease will more readily cofide in the scientific surgeon, and less frequently fall into the hands of the charlatan.

9. One of the most important surgical subjects which has lately been brought before the consideration of the profession is the Cure of Aneurism by Pressure. Several cases of this formidable disease, cured without operation, are quoted in our extracts, and it is most important that the practical surgeon should be made fully aware of the recent results of experience in this method of treatment. Compression effected in various ways has repeatedly been resorted to, for the purpose of arresting or curing aneurism, but we believe that we may state, at once and unequivocally, that the application of pressure upon strictly scientific principles has never had a fair trial. The cases before us justify the opinion that in many cases it will prove an adequate remedy, and will supersede the use of the ligature.

It may be useful to take a cursory view of the objects for which compression has been resorted to in the treatment of aneurism.

Dr. W. Hunter held that when the integuments begin to give way in aneurisms of the aorta, bandage judiciously applied might preserve life for some considerable time, but looking to the effects of pressure on the arterial tunics, during the gradual dilatation of the aneurismal sac, where it meets with the resistance of the osseous structure, as of the sternum or vertebræ, he came to the conclusion, that in the main, compression or tight bandaging would only aggravate the evil. Dr. D. Munro taught the same doctrine. But in cases of false aneurisms, when small, particularly those oc-

curring in the arm from bleeding, Dr. Munro advocates, together with moderate depletion, compression on the part, by means of compresses and bandages, to prevent the blood from flowing in the cyst; the compression to be continued not only till the tumor disappears, but likewise for some time after, lest a relapse should occur; quoting cases which have been cured, but concluding with the remark, that 'where such aneurisms are large, and of long standing, this method can have no effect.' Guattani and the surgeons of Rome about this period (1750–60), attached more importance to compression as a remedy, and resorted to it somewhat more systematically in crural and popliteal aneurisms. The latter author recommeds gradually compressing the aneurismal tumor, by means of bandages applied more and more tightly from day to day, and gives successful cases. It will be observed that Guattani's method was 'direct and energetic' pressure. Subsequently to the Hunterian operation being adopted, the plan of compressing the artery at some distarce from the tumor was made trial of by Dubois, Astley Cooper, and others, the object being, by severe and continued pressure, to render the artery impervious. The objections to these modes of applying pressure are stated to be, and no doubt are, positive. It is either insufficient, or it is impossible to protect the neighboring parts from its influence, and accordingly the flow of blood in the collateral vessels is arrested; it requires to be continued for a great length of time, and is attended with great pain. Hence constitutional disturbance followed by inflammation, ulceration, or sloughing of the compressed parts; in numerous cases the patient has been unable to sustain it, and from other causes it has proved unsuccessful.

We will furnish our readers with a short account of the more scientific application of pressure for the cure of aneurism, lately adopted by Hutton, Cusack, Bellingham, Allen, Greatrex, and Liston, from Professor Miller's Principles of Surgery. The pressure is made at the Hunterian site, but is neither constant nor severe. By any suitable apparatus, a moderate degree of pressure is applied to the vessel, at a point where the coats may be expected to to be sound, and consequently not prone to ulcerate from various causes.

This is maintained so long as it can be conveniently borne by the patient, but no longer. When uneasy sensations become intense, with swelling and numbness of the limb, and throbbing in the part, the pressure is either slackened or removed. After a time, the parts having recovered, it is re-applied. Again it is removed, and thus the disasters formerly

attendant upon the treatment by pressure are avoided. At the same time that the circulation in the aneurism is moderated, the tumor begins to diminish, its pulsation is less, and it feels harder and less compressible; ultimately pulsation wholly disappears, and induration becomes complete, absorption advances, and the cure is obtained with or without a previous state of the vessel. Throughout the treatment absolute repose and decumbency are maintained, with an antiphlogistic regimen. Also, the limb below the compressed point must be uniformly and equally supported by bandaging, lest passive congestion and œdema supervene; and this pressure may, from time to time, be somewhat increased on that part of the limb which includes the aneurismal tumor. The process is one of weeks, not days—gradual, not sudden—interrupted, not continuously progressive. The pressure requires to be neither great nor constant, for we do not desire obliteration even temporary. It is sufficient to moderate, not essential to obstruct the flow of blood. The treatment is conducted rather as if itself were not the agent of cure, but only the means whereby the spontaneous cure may be originated and favored.

The objections still advanced by Professor Miller to this improved method of applying pressure are:—The protracted period and ultimate uncertainty of the cure. If improperly conducted, it is in every point of view inferior to the ligature. It is less capable of general application, since many systems cannot tolerate pressure; our experience of its use is in its infancy.

The last objection of Professor Miller is exactly that which will render it incumbent on us, in the future numbers of the 'Retrospect' to place before our readers an abstract of all the cases, whether successful or unsuccessful, that may for some time to come meet the public eye. This is the only way by which profit can be made to accrue to the great body of surgeons by the experience of individuals. At present it will suffice to say that in 1831 Assalini published a case of popliteal aneurism cured by pressure. In November last, Dr. Hutton, of Dublin, recorded seven cases treated by pressure, one only of which was unsuccessful. Giraldés in his memoir cites fifteen cases, including those just referred to, of aneurism treated successfully by compression of femoral artery, and he remarks that the mean duration of the treatment was 24 days, the minimum 5 days, and the maximum 90 days; and this author judiciously suggests that one circumstance which ought to plead strongly in favor of com-

pression, and recommend it to the attention of surgeons, is the contingencies which await the operation by ligature. The ligature is not an infallible remedy; too frequently the disease returns after the operation, of which circumstance instances are cited upon the authority of Cooper, Brodie, Roux, and Lenoir; and serious accidents, as consecutive hemorrhage, wounds, and inflammation of the veins, gangrene, and death, have been the consequence. Such being the fact as relates to the treatment now resorted to by surgeons, the new plan ought at all events to be tried for the present, in every case, before resorting to the operation.

The advantages of compression over ligatures are, that it is exempt from all danger; so far as the evidence enables us to judge, more universally successful; it is applicable to certain cases of aneurism to which the ligature is not, and to some in which the operation by ligature would be likely to be followed by unfavorable results, as in the case of very large aneurisms which compress the collateral circulation. It is applicable in cases wherein the ligature is contraindicated from disease of the arterial system, and in cases of the 'aneurismal diathesis;' also in cases of spontaneous aneurism in broken-down constitutions, in which the surgeon would perform an operation only with the greatest reluctance; and lastly, its employment, if ever it should happen to be unsuccessful, does not preclude the subsequent operation by ligature.

We conclude this article with a quotation from Dr. Bellingham's explanation of the mode of applying the pressure.

"Instead of employing a single instrument, we employ two or three, if necessary; those are placed upon the artery leading to the aneurismal sac, and when the pressure of one becomes painful it is relaxed, the other having been previously tightened; and by thus altering the pressure, we can keep up continued compression for any length of time." * * *

The instrument "consists of an arc of steel covered with leather, at one extremity of which is an oblong, padded splint; the other extremity terminates in a nut, containing a quick screw, to which a pad, similar to that of a tourniquet, is attached. * * * The principle is extremely simple; so much so, that the patient can regulate its application himself, and it can be made of every size, so as to compress any vessel within the reach of compression."

10. The subject of tracheotomy and the removal of foreign bodies from the larynx excited great interest at the pe-

riod when Mr. Brunel's case was before the public. In that remarkable case the patient suggested the idea of inverting the body so as to give the same facility to the passage of the substance out of the tube which it had to get in, but the experiment demonstrated that the human system is not a mere machine—a vital spasmodic action closed the glottis and rendered the experiment unsuccessful, until the art of the surgeon was resorted to for the performance of tracheotomy. A case, however, has been recorded in the Northern Journal of Medicine from which it appears that the idea of the mechanician will sometimes succeed, and that the knife of the surgeon may be superseded. A shilling slipped through the glottis of an individual, giving rise to comparatively little inconvenience. It seemed to the patient to be fixed at the cricoid cartilage, and that it would return if he were placed on his head:—

"The man was placed with his shoulders against the raised end of a pretty high sofa, and then being seized by three of the most powerful of those present by the loins and thighs, he was rapidly inverted, so as to bring the head into the dependent position, and after a shake or two, Dr. Simpson at the same time moving the larynx rapidly from side to side, the shilling passed into the mouth and fell upon the floor." The relief was instantaneous and complete.

In our own immediate neighborhood a piece of cotton wool passed into the trachea of a lady from a carious tooth; a medical man was called in, and precipitately ran out for another surgeon to perform tracheotomy. In the interval, the husband believing that his wife was at the point of death, inverted her body, the foreign substance was expelled, and before the return of the doctors she was perfectly restored. It should not be forgotten, however, that the foreign substance in falling from the trachea might fix itself in the glottis and cause almost instant death, so that the inversion of the body cannot be considered a safe measure unless the surgeon is at hand with his scalpel.

11. The various foreign and domestic journals during the last six months contain the usual amount of information in the shape of lectures, essays, discussions, cases, &c.; but we believe we have extracted the most important novelties. There are some interesting instances of those cases which involve what are usually styled the minor operations of surgery, which are by no means undeserving attention, The following is an instance in point:

A lady from the country had a carious tooth filed to admit a pivot to an artificial tooth. This trifling operation was attended with little pain, was followed by an abscess in the jaw, for which the extraction of the root was recommended; but as it was a superior canine tooth, with a deep root, and as the stump presented no hold, the most skilful dentists would not undertake the extraction. According to the advice of M. Recamier, M. Maisonneuve made an incision in the mucous membrane; and after exposing the maxillary bone, he divided the bone along the alveola. This operation is infinitely less painful than those resorted to by dentists with their various instruments. The root being thus exposed, M. Maisonneuve laid hold of it with a hook, and it was removed with great ease.

12. Operations, novel in character, or remarkable for their boldness, are sometimes resorted to *once* even by judicious surgeons, and are justifiable, although judging from results we may arrive at the conclusion they ought never to be repeated. These and the more rash experiments of the ignorant or reckless, like rare and extraordinary cases, frequently throw light upon the phenomena of nature, or serve as beacons for the future. Instances of one or more of these different classes of surgical cases will be found in that part of our volume set apart for 'extracts,' and we may add to those contained in our present volume two cases of "puncture of the intestines to relieve the agony of distension in supposed internal strangulation," lately recorded by Sir George Lefevre.

The lady of an officer of high rank had been suffering for some time with disordered digestion, when she was suddenly seized with violent vomiting and purging, and fecal matter was discharged by the mouth. To this succeeded constipation and tympanitis; the latter being so distressing that it was resolved to puncture the bowels. Large quantities of gas escaped: the patient felt immediately relieved from her extreme sufferings. She died the same day or the following."

"A lady, the mother of six children, was in the family way of the seventh, and in about the fourth or fifth month of utero-gestation. She complained of sudden pains in the bowels, which she took to be colicky, and used some domestic medicine. The pains increasing, and the bowels continuing locked, blood was taken from the arm, and leeches applied very freely to the part. No relief was afforded. The abdomen became very tense, and the pains returned at repateed

intervals. She expressed herself thus,—that she had borne six children, and that the united pains of all her labors were not so excrutiating as any one of the pains under which she suffered. All means had failed in procuring her relief. Six or seven medical men were in constant attendance upon her. Injections, warm baths, cold affusions, bleeding, opium in large does, nothing relieved her.

"It was, therefore, upon the idea only of shortening her sufferings, that it was proposed to puncture the intestines. A trocar was thrust into the colon, some gas escaped, and she exclaimed, 'I can breathe now.' Fæces soon filled up the canula; the spasms returned, but in rather diminished force. She sank in about fourteen hours after the operation, suffering to the last.—*Ranking's Abstract.*

Treatment of Scalds.—Dr. Grosskopf speaks strongly in favor of the Ung. Plumbi Acetat. as a local application in cases of scalds, stating that if applied at once, it invariably prevents the formation of vesicles, speedily allays pain, and diminishes redness and swelling. In cases where vesicles have already formed and burst, its application quickly promotes the healing of the exposed surfaces. No evil effects on the system have followed its employment.—*New York Medical Intelligencer.*

Arsenic in Intermittent Fever.—M. Boudin, physician to the Military Hospital at Versailles, reports to the French Academy of Medicine the result of his practice in intermittent affections. He has exhibited arsenical preparations to 2,946 patients in the course of five years, with the most beneficial results. The preparation he employs is a solution of one grain of arsenicous acid in a pound of distilled water; three ounces constituting the common dose.—*Med. News.*

THE WESTERN JOURNAL.

NEW SERIES.—VOL. V.—NO. I.

LOUISVILLE, JANUARY 1, 1846.

THE WESTERN LANCET.

We are grieved to see that a remark made by us, in our obituary notice of the late Professor Richardson, has provoked the displeasure of our neighbor of the Western Lancet. The editor, in his December number, after quoting from our article the words which follow: "but Dr. Richardson, while he was sensible of the superior advantages which this school (the Louisville Medical Institute) would enjoy, made up his mind to remain in the institution which he had been instrumental in building up;" goes on to express "deep regret," that they should have found a place "in *such* a journal, on *such* an occasion." They "explain," in his opinion, no part of the "history" of the deceased, have "no relationship to his character" as a public man, and must, therefore, he insists, have been "introduced for the purpose of injuring a rival medical school." He adds: "It will certainly be regarded as a unique specimen of ill-feeling, which would introduce an *electioneering* paragraph, into an obituary notice of a lamented member of the profession, and a former colleague."

Our neighbor's sensibilities are, evidently, very much shocked; he looks upon our harmless paragraph as something near akin to sacrilege. But we assure him, that we were not prompted by any

"ill-feeling" in writing it, and that nothing was farther from our expectations, than that we should offend any one by adverting to a fact, as well known as any other, in the history of Professor Richardson. As to its relevancy or importance, we are sorry that the editor of the Lancet does not think with us; but in regard to that we had to judge for ourselves; and if it occurred to us as a very momentous incident in the life of the deceased, we venture to believe that it did not appear less so to himself and his friends. Professor Richardson was the first individual, connected with the Lexington school, to broach to an influential Senator in the Kentucky Legislature the project of removing that school to Louisville; and that he continued to be one of the warmest advocates of that measure for a long time afterwards, is as certain as anything can be rendered by human testimony. It rests, in truth, upon nothing less than his own declaration to the Board of Trustees of Transylvania University, and if anything further were needed, we might add, upon the published evidence of four of his colleagues. But it is unnecessary to insist upon the truth of our statement, since the editor of the Lancet does not call it in question; he contents himself with remarking—

"In relation to the assertion contained in the obnoxious paragraph, we can only say, that we know not what views Prof. Richardson may have expressed to the writer; but this we do know, that during our short association with him, he always *decidedly* and *emphatically* expressed the contrary opinion."

It appears, then, that Prof. R. not only made up his mind to remain in Lexington, but changed his views in respect to the great superiority of Louisville over that city as a seat for a medical school; and to show, we suppose, that such changes of opinion are not rare among distinguished teachers, the Lexington editor copies largely from the discourse of our colleague and friend, Prof. Caldwell, on the "*impolicy of multiplying schools of medicine.*" He does our venerable associate the honor to say, that he "is justly regarded as one of the ablest men of our country," and that he had enjoyed "opportunities of becoming perfectly familiar with the facilities for instruction in the large cities of the United States and Europe." The "opinions" of Prof. C., to which the editor of the Lancet "concedes great weight," were, that hospitals were of no benefit to a large class; that living was "fifty per cent. higher in Louisville and

Cincinnati than in Lexington;" and that these cities afforded to pupils no superior facilities for prosecuting practical anatomy. These were the chief; to which we might reply, after the manner of our neighbor, that our learned colleague *does not entertain them now;* but since our brother editor is disposed to allow them "*great weight,*" we will state a few reasons why we are compelled to dissent from them.

Concerning hospital instruction as formerly administered, the sentiments of Prof. Caldwell were no doubt correct. A large class crowded around the beds of the sick are in no situation to see or hear to advantage; but our neighbor understands that things are ordered differently now; and that the clinical remarks and examinations made in amphi-theatres connected with hospitals, with patients full in view of all the class, surpass in interest and instructiveness any other lectures delivered on the practice of physic.

In respect to the cost of living, our colleague was altogether mistaken; experience has proved that it is not greater in Louisville than in Lexington.

The only other question relates to the comparative means of large and small cities for sustaining the anatomical department of a medical school, and we have seen that the author of the discourse referred to did not concede to the former any superiority on that point. This was his opinion, weighty or otherwise, and he expressed it with great earnestness. In his eloquent discourse, in passages quoted and apparently adopted by the Lancet, he depicts, in frightful colors, the difficulty of procuring subjects in large cities—a difficulty, which, as he forcibly expressed it, "has led to the atrocious practice of assassinating individuals, and selling their bodies to surgeons and pupils!" This appeared unanswerable, at the time; the fact seemed to be made out, that crowded cities were *not* the places to study anatomy; but it was still an opinion merely. We have had experience since, and, as a part of it, we declare to the editor of the Lancet, that "*Burking*" is still unknown in Louisville, notwithstanding that large classes have been engaged in the dissection of human subjects, every winter, for seven years past. Dr. Bush, the then Demonstrator of Anatomy, stated before the Trustees of Transylvania University, in March, 1837, that there had been, in the anatomical rooms under his supervision, *eleven* subjects during the preceding winter; and that, out of a class of two hundred and forty-two,

one student had engaged in dissection. The session in the Medical Institute is now just half over, and, according to information derived from the Demonstrator of Anatomy, the dissecting classes, amounting to upwards of thirty, and embracing one hundred and eighty-four pupils, have already been supplied with subjects. With the beginning of the year his first class was invited to recommence their labors, and, if his success should not be less than it has been in former years, he expects to see every class in his rooms a second time before the first of March. This is experience *versus* opinion.

It appears from the article in the Lancet, that both Dr. Richardson and Dr. Caldwell changed their ground respecting the superior fitness of Louisville for supporting a medical school. Dr. Caldwell, at one time, seems to have doubted it; but finally his doubts gave way, and he became an advocate for the removal. With Dr. Richardson the process was the reverse of this; he was the first to propose measures for transferring the medical department of Transylvania to Louisville; but, according to the Lancet, towards the close of his life he was "decidedly and emphatically" of opinion that Lexington was the better site. Here, again, we have been taught by experience. Dr. Richardson lived to see the Louisville Medical Institute numbering two hundred and eighty-six students, while he was lecturing in Lexington to a class of one hundred and fifty-six. Dr. Caldwell still lives; he does not know what the present size of the Lexington class is, but he has the satisfaction of seeing now assembled in the school of which he was the founder a class of three hundred and forty-five. These facts we hold to be more decisive of the question than any man's opinions.

And here we dismiss the subject, we trust, forever. We hope our explanation will be satisfactory to our contemporary. He cannot feel a greater repugnance to professional bickerings than we do; and again we must express our unfeigned sorrow that anything from our pen should have drawn down from him upon us so grave a lecture. We are most happy when our editorial labors meet with the approval of our readers, and although we are not so sanguine as to expect ever to please all tastes, we do hope, henceforth, to be able to "plod" along our "weary way" without giving offence to our neighbor of the Lancet. Y.

THE WEATHER.

The month of December was the coldest month that has been experienced in this region for several years. The mean of February, 1841, we think it was, was 30°, since which time we have not known so cold a month until the present time. The mean temperature of December was 25°. Having had an early spring, a hot summer, and a late, mild autumn, we were prepared to see a cold winter. As the average of the three preceding seasons had been too high for our latitude, it was pretty certain that the annual mean would be restored by the only remaining season of the year. The latter part of November was intensely cold—one morning the thermometer in Louisville having stood at 4°, and in Jacksonville, Illinois, by report, 26° below zero. The mean of the four last mornings in the month was 16°. The mean temperature of December, at sun rise, was 19.2°; the highest rise at any time during the month was 48°; the lowest point to which it fell was 0°; for three successive mornings the range was 1°, 0°, 8°, and during two successive days the mean was as low as 5°.

December, it will hence appear, with the latter days of November, has gone far towards reducing the excessive heat of the previous seasons to the annual mean, and we may therefore look for open weather in January or February. The river was closed by ice early in December; the prediction of our meteorologists, founded upon the theory of a mean annual temperature, has been, that a thaw would occur, and navigation be resumed, before the end of January.

In connection with the weather, it seems appropriate to say something in regard to the prevailing diseases of the season. These, as was to have been expected, were of an inflammatory type—catarrhs, attended with acute pain in the frontal sinus in some cases, and with tonsilitis, in many, pleurisy and pneumonia. We witnessed a highly interesting case of each of the latter of these affections. The first a case of pleurisy, was presented in a little girl, about 7 years of age. It was complicated, after the first few days, with symptoms of gastritis. The case of pneumonia was a highly aggravated one; the subject of it was a lady, aged about 60 years, corpulent, and of excellent constitution. She was bled freely on the first day of her attack, and put upon calomel and antimony. The second night afterwards

the symptoms assumed the most alarming aspect; the dyspnœa was excessive, attended with lividity of countenance, and apoplectic signs. The venesection was repeated, and in the several bleedings amounted to ninety-six ounces of blood. Stimulants became necessary in the progress of the case, the result of which was favorable, as was also that of the case of pleurisy. The city may be said, at the present time, to be very healthy. Y.

LIFE AND TRIAL OF DR. ABNER BAKER.

This is a volume of 160 pages, by C. W. Crozier, containing the circumstances of the trial and execution of Dr. Baker, to which we have already referred in this number at considerable length. We allude to the subject again for the purpose of informing our readers that the volume has been published, and that it contains much matter which we were unable to embrace in our article. Much of it is of a character which one must regret to see circulated through all the walks of society; but it is so mingled with the history of the deplorable case that it could not have been omitted. The case is obliged to assume great importance in its relation to medical jurisprudence, and as such ought to be carefully studied by every physician and lawyer. Y.

INTRODUCTORY LECTURES.

The former custom in medical schools, of devoting six days to the delivery of as many introductory lectures, is giving way to the more economical one of a single public discourse, to which the didactic lectures immediately succeed. Professor Short delivered this discourse to the class in the Medical Institute at the opening of the current course of lectures, and, to the politeness of the class, at whose request it was published, we are indebted for a copy of it. The subject very appropriately chosen was, "*The Duties of Medical Students during their Attendance on Lectures,*" and these are indicated and enforced in chaste and beautiful language, of which the following impressive quotation may be taken as a specimen:

"Twenty-one years have now elapsed since I first became connected with a school of medicine, in the responsible character of Teacher of one of its branches. During the greeter part of that long time I have acted in the capacity of Dean,—an office which necessarily throws the incumbent into constant intercourse with the members of every class, thus rendering him intimately acquainted with the character and deportment, the habits and manners, the fate and fortunes, the failure or success of a large number of every class, and especially of those who have been candidates for graduation. Having then for so many years possessed—I will not say enjoyed—these opportunities of observation, I may be, in some sense, considered as speaking by authority when I say, that never have I known him who sowed to the wind, reap other harvest than the whirlwind—never have I seen the sober, industrious, and attentive student fail in the object of his ambition; but often have I seen the poor young man, struggling against adversities of all kinds, by dint of persevering application, victoriously surmount them, and attain to eminence and distinction,—and too often have I been called upon to witness the bitter tears of anguish and remorse, shed by the presumtuous idler over his blighted hopes and blasted expectations."

Professor Harrison's introductory, in the Ohio Medical College, and that of Professor Linton, in the St. Louis University, have also been laid on our table, and will be noticed in our next number.

Y.

NEILL ON THE NERVES.

We noticed, some time ago, a work on the Arteries, by Dr. Neill. The volume before us is of the same character, being designed to give to students a general idea of the anatomy of the nerves. As in the former production, the task has been executed with fidelity and skill, and in the plates delineating the origin and course of the nerves the student will find a clear and beautiful exhibition of this portion of anatomy. We heartily recommend the work to all students of medicine.

Y.

LOUISVILLE SUMMER SCHOOL OF MEDICINE.

The lectures in the Louisville Summer School of Medicine will commence on the first Monday in April, under, substantially, the arrangements of the last season.

FACTS FROM CORRESPONDENTS.

We are indebted to *Dr. E. W. Harris*, of Cape Girardeau county, Missouri, for the following interesting communication relative to *Ergot* in cases of flooding and threatened abortion.

"In answer to Dr. Emery's question in the November number of the Western Journal, I will state, that in the year 1826, I was called to see Mrs. J. in the third month of pregnancy, taken six hours before my arrival, with flooding while ironing clothes. The os tincæ was found dilated, membranes protruded, pains regular but weak, and hæmorrhage alarming. Ergot was given with a view of arresting flooding by the expulsion of the uterine contents; in about half an hour the flooding was arrested, the pains ceased, the os uteri closed again, and the woman continued well for two months, when she was, while lifting a heavy burden, suddenly seized with labor pains, and, before my arrival, delivered of twins.

"Since then, I have, on four different occasions, with as many women, witnessed the cessation of *flooding* and *pains*, after the administration of ergot with the view of hastening abortion."

December 1, 1845.